104

REAUTHORIZATION OF THE ENERGY POLICY AND CONSERVATION ACT OF 1995

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Reauthorization of the Energy Polic...

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HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER

OF THE

COMMITTEE ON COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

FIRST SESSION

NOVEMBER 9, 1995

Serial No. 104–49

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REAUTHORIZATION OF THE ENERGY POLICY AND CONSERVATION ACT OF 1995

THURSDAY, NOVEMBER 9, 1995

HOUSE OF REPRESENTATIVES,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON ENERGY AND POWER,
Washington, DC.

The subcommittee met at 10:10 a.m., in room 2218, Rayburn House Office Building; Hon. Dan Schaefer (chairman) presiding.

Members present: Representatives Schaefer, Franks, Burr, Coburn, and Pallone.

Staff present: Catherine G. Van Way, majority counsel; Joseph Kelliher, majority counsel; and Sue D. Sheridan, minority counsel.

Mr. SCHAEFER. The Energy and Power Subcommittee will come to order.

I would like to, first of all, welcome everybody to today's hearing on the Energy Policy and Conservation Act. EPCA was enacted in 1975 and was intended to help reduce U.S. reliance on foreign oil. In the 20 years since EPCA's enactment U.S. reliance on foreign oil, however, has grown rather than diminished.

In addition, the Energy Information Administration predicts that this reliance will continue to grow and that around the year 2010 the U.S. will be more than 60 percent dependent on foreign oil.

Thus, in reviewing this statute we must ask ourselves if these programs are accomplishing their objectives and if we should continue with them. Certain programs under EPCA have always required periodic reauthorization. The Congress frequently requires legislation to be reauthorized as a means of getting future Congresses to review the continuing need for such programs. The reauthorization process gives Congress the opportunity to extend, modify or end programs as appropriate.

EPCA programs cost taxpayers hundreds of millions of dollars every year, and if they are not producing significant benefits or if there are more cost-effective ways to accomplish the same goals, we must be prepared to act.

Today we will be listening closely and weighing the costs and benefits of the various EPCA programs under consideration today. I am going to be paying special attention to DOE's position with regard to the future of the Strategic Petroleum Reserve.

This year, at the request of DOE and for the first time since it was created, SPR will begin to get smaller rather than larger. The SPR has always been a national oil reserve to be used for the sole purpose of protecting the U.S. from energy supply interruptions.

This year DOE offered up the SPR as a tool for raising revenues and to reduce its budget. DOE claimed this would be a one-time sale and the oil wouldn't be missed. Unfortunately, the Congress has taken them up on their offer. In addition, now that the DOE has opened the door to using SPR for other purposes, it is likely Congress will, although some of us more than reluctantly, follow DOE's lead in using the SPR to help balance the budget.

DOE's one-time limited sale of oil is rapidly becoming a habit. If this trend continues, we will have sold our energy security at half the price it cost us to acquire.

Today I hope the Department of Energy can tell me and the members of this committee if we still need SPR, and if so, how big it should be. The SPR costs millions of dollars each year to maintain and operate. If it is no longer necessary or becomes so small that it can no longer protect the U.S. in an energy emergency, we should look at finding other ways of doing this.

I hope that DOE will be able to answer these questions and other questions I have about this particular program, and I am looking forward to hearing the witnesses and will turn to my friend from New Jersey, Mr. Pallone.

Mr. PALLONE. Thank you, Mr. Chairman. I'm glad we are having a chance today to look at the laws that underpin our Nation's conservation and energy efficiency policies. Some of them, as you know, have expired and others will soon expire unless we reauthorize them.

I think the most important question is, which laws are working and which are not? We need to consider priorities since funding for these programs has been cut in the appropriations process.

I would just like to make a few observations.

First, conservation and energy efficiency are still very important to the United States. Even if we never face another energy crisis, there are ways to keep costs down and to reduce pollution. Given the difficulties of even discussing environmental policy in Congress today, we should all leap at the chance to avoid creating any pollution.

Second, many of these programs are delegated to the States and many have been pursued on a voluntary business with industry and State governments acting cooperatively. In other words, the Energy Policy Conservation Act and others are models of cooperation, the sort of approach we are all looking for today in order to minimize the need for heavy-handed regulation.

With that in mind, I look forward to hearing from our witnesses, and I especially would like to learn more about how business has assessed the voluntary programs and which are the success stories that we should hold on to.

Thank you, Mr. Chairman.

Mr. SCHAEFER. The Chair thanks the gentleman.

I would now turn to our first witness, Mr. Kyle Simpson, the Associate Deputy Secretary for Energy Programs. I apologize for my voice. I'm trying to battle a little bit of a cold here today.

Mr. Simpson, you and I spoke just prior to this hearing. I want to relay the word out among all the people in all of the agencies that we only got this testimony last night at 8 o'clock. It's tradition that we have testimony 2 days before a hearing, but we would even

give it up to noon on the day before. Our staff does not have time to go through these things if they don't receive them in advance of a hearing. If indeed this happens a second time with any other agency of the government, you will not be on the panel first and you will be waiting until after the other witnesses testify. You can pass that word.

Mr. Simpson.

STATEMENT OF C. KYLE SIMPSON, ASSOCIATE DEPUTY SECRETARY FOR ENERGY PROGRAMS, DEPARTMENT OF ENERGY

Mr. SIMPSON. Thank you, Mr. Chairman. I think 2 days would be better than none, and that is the goal that we will work toward. It's a frustrating process that we need to improve.

It's a pleasure for me to be here before the committee today to talk about the Administration's bill that proposes to amend and extend the Energy Policy and Conservation Act authorities which will expire on June 30, 1996, and extend those authorizations out to September 30, 2001.

These programs, which include the Strategic Petroleum Reserve and participation in the International Energy Agency, and energy efficiency, and renewable energy and conservation programs, are as important to us today as a Nation as they were when they were enacted in 1975.

As you spoke and remarked in your opening comments, oil consumption in this country will continue to increase. In fact, oil consumption in the world will increase at a dramatic rate between now and the year 2010. We expect to be consuming some 21 million barrels, 3.5 million barrels more a day in this country, by the year 2010, and our dependence on imports, which today is near 50 percent, will rise up above 60 percent by the year 2010.

The economic implications of this are that we will have doubled our import bills by that time and will be spending about $85.2 billion annually on oil.

The imports that we receive in this country are a challenge as we try to utilize the tools that we have available to us to reduce our vulnerability to supply disruptions. Following the oil embargo of 1973 and 1974, the Energy Policy and Conservation Act was enacted. At that time the exports of the Persian Gulf nations were about 67 percent of the total world export. Actually, it was below that. It rose after the embargo.

If the trends continue at what the Energy Information Administration, the International Energy Agency, and even OPEC itself predict, then the Persian Gulf exports will rise from 48 percent today to 71 percent control of all of the world's export markets by the year 2010, above the level that we were facing before the embargo.

So we need to continue these programs. The Strategic Petroleum Reserve is our first line of defense against disruptions. It is a tool that we use to work with the International Energy Agency partners to ensure that the world has a sufficient stockpile to maintain a defense against a disruption that is either caused by a natural occurrence or a calculated, intentionally planned event to disrupt the

supply or price of oil, and affect the economies of the nations of the world.

You mentioned the sale of oil from Weeks Island. I must tell you that that was a difficult choice that we had to make. We were challenged with the ability to continue other important programs in our Fossil Energy office with regard to research and development, things that have long-term important implications for continuing to produce oil in this country, and other fossil energy resources in this country. The choice that we made was to sell, one-time, 7 million barrels of oil from the Strategic Petroleum Reserve in order to pay for the decommissioning of the Weeks Island facility in Louisiana.

As you know, the Weeks Island facility is a shallow salt mine and it has developed a leak. We had no choice but to close it. The Reserve has been operating over the last several years on existing balances in accounts from sales of oil, in test sales in 1990 and the sale of oil during the invasion of Iraq and prior year opportunities for oil. We have now virtually exhausted those balances.

We do not intend to propose the sale of any additional oil and we are opposed to the sale of oil simply for the purpose of balancing the budget.

The bill that we have proposed has several basic components. Let me move quickly through them.

We would delete the requirement for regional petroleum reserves. The Reserve itself manages that purpose. It meets that purpose, and the market can move the oil into the regions.

We would delete the requirement for a Strategic Petroleum Reserve plan since the Reserve itself has been built, according to the plan and amendments. We would codify the distribution plan to require the sale of oil drawn from the Reserve to the highest bidder. This would help us in our efforts with the International Energy Agency to ensure that we use the markets to distribute oil in times of crisis as opposed to the sharing plan—the allocation system—which our experience has shown us will inevitably get us into confusion. You would have oil going where it doesn't need to be and not showing up in places where it should be.

We would have a provision to make a plan for expansion of the Reserve to a billion barrels necessary only when a pattern of funding indicates an inventory of 750 million barrels will exist within 5 years. This would keep us from having to spend valuable and expensive time of the staff evaluating and making plans to build a Reserve when we would not have the capacity to fill the Reserve due to the lack of appropriations. Even if we did build a Reserve, leaving it empty could damage its integrity.

We would delete the requirement of the 30-day congressional review period for alternative financing of contracts. I can explain that if you want me to go into detail on that.

And we would request explicit authority to store petroleum for foreign governments in underutilized Strategic Petroleum Reserve facilities.

In the area of efficiency and renewables, there are two very important activities that are authorized by this legislation. The Committee on Renewable Energy Commerce and Trade and the Committee on Energy Efficiency Commerce and Trade are vital to export assistance and coordination, which help level the playing field

in international markets for our industries and businesses that sell these important products. There is estimated to be some $200 billion of a $900 billion economy for energy products over the next decade, and $200 billion of that is efficiency and renewable technologies.

There have been a number of successes around the world, and companies have been moving around the world. We want to help promote our companies' capacity to compete effectively against the companies from other countries and expand our leadership role in these technologies.

The Administration also strongly supports reauthorization of the energy conservation program for schools and hospitals and the State energy conservation plan. The Department is working with the States to consolidate these programs into a new, much more flexible State energy program. The reauthorization will enable the Department to continue vital partnerships with States, the business community, housing organizations, hospitals and schools and other public and private entities.

These are the things that are contained in the bill, but I would close with one comment. The Administration strongly supports the reauthorization of the weatherization assistance program for low income persons. We did not include it in this bill because we did not want to move outside of the scope of the Energy Policy and Conservation Act with our proposals at this time.

That concludes my prepared remarks and I would be glad to answer any questions.

[The prepared statement of C. Kyle Simpson follows:]

PREPARED STATEMENT OF C. KYLE SIMPSON, ASSOCIATE DEPUTY SECRETARY FOR ENERGY PROGRAMS, U.S. DEPARTMENT OF ENERGY

Mr. Chairman and members of the committee: I am pleased to appear before you today to describe the Administration's proposal to amend and extend to September 30, 2001 certain authorities of the Energy Policy and Conservation Act (EPCA), which will otherwise expire on June 30, 1996.

EPCA authorizes the programs which are at the core of our nation's energy security—the Strategic Petroleum Reserve (SPR) and our participation in the International Energy Agency (IEA). It also provides authorities to support our long-term efforts to reduce vulnerability through energy efficiency, renewable energy, and conservation programs. We believe that these programs are as important to our nation today as they were when EPCA was enacted by Congress in 1975.

EPCA was initially enacted after the oil embargo of 1973-74 when oil prices quadrupled and our nation and our nation experienced major economic shock. After the Iranian Revolution, oil prices tripled, concerns about oil supply increased when oil production suddenly declined, and our economy contracted. The Persian Gulf crisis that began with the Iraqi invasion of Kuwait five years ago is still not fully resolved. These past oil crises were unpredictable. Our nation's ability to respond to further unforeseen oil disruptions will be critical to America's economic well being. The authorities in this proposal will extend and improve our capability to adequately respond to such disruptions.

As a nation we are currently enjoying the economic benefits of low oil prices and generous supplies of oil from a variety of worldwide sources, many of them newly important since the 1970s. On the other hand, the major sources of crude oil are still located in politically volatile areas, a condition that is unlikely to change. At the same time, worldwide demand for oil is growing—much more rapidly in many of the emerging economies than in the United States. We recognize and are working to enhance the continued contributions of the domestic natural gas and oil industry to U.S. supply, as well as the industry's role as an important source of capital formation, technological development, and employment in the U.S. economy. We also value the oil displacement that has and can occur from enhanced energy efficiency and technological advances. Nevertheless, we cannot expect to achieve complete en-

ergy independence. Thus we continue to seek to limit our vulnerability and enhance our ability to meet oil market disturbances. The risks we may face are typically sudden, actual or threatened disruptions or reductions in world oil supply, resulting in equally sudden increases in world oil prices and potential damage to our economy. Our policy is to rely on the Strategic Petroleum Reserve and cooperation with other consumer nations through the International Energy Agency (IEA) as primary deterrents and tools for mitigating the harmful effects of supply interruptions.

In this reauthorization, we propose to incorporate in our SPR authorities the lessons learned in the first emergency SPR drawdown during the Iraqi occupation of Kuwait and the first IEA coordinated emergency response. In addition, by clarifying that EPCA's limited antitrust defense for U.S. oil companies participating in the IEA is available when the companies advise the IEA on coordinated stockdraw, we will be able to work with our IEA partners to ensure that coordinated drawdowns driven by market conditions, not formula-driven oil allocations, are always the first response to tight oil markets. We have sought in the proposed amendments to update these energy security programs, to make them more cost effective, and to resolve issues which may hinder operational readiness.

We also propose to extend the authorization for five important energy efficiency and renewables programs. These include two programs promoting the export of U.S. energy efficiency and renewable energy technology programs known as the Committee on Renewable Energy Commerce and Trade and the Committee on Energy Efficiency Commerce and Trade, the State Energy Conservation program, the Energy Conservation Program for Schools and Hospitals and the Alternative Fuels Truck Commercial Application Program.

STRATEGIC PETROLEUM RESERVE AUTHORITIES IN TITLE I

During the last 20 years the Strategic Petroleum Reserve has become an the Nation's first and principal defense against oil price shocks and supply interruptions. Additionally, U.S. leadership in stockpiling has been and remains critical to the accumulation of stocks in other International Energy Agency member countries. Its inventory of 592 million barrels of oil, which is currently held in five sites in Texas and Louisiana and is the equivalent of 74 days of imports, is a significant deterrent to the use of oil embargoes as a political weapon as well as substantial protection against the effect of actual or imminent disruptions in crude oil supplies. The Reserve vastly increased the flexibility of the United States to pursue the embargo of Iraq and Desert Storm hostilities without concern that the hostilities would precipitously disrupt the availability of oil. I believe it was a factor in calming oil markets during the Iran-Iraq war in the Persian Gulf in 1987-88. From an operational perspective, sales of oil during Desert Storm went smoothly, which clearly demonstrated the Reserve's ability to perform its mission if called upon.

Today, the potential for oil market disturbances remains, whether caused by wars, political and religious unrest, natural disasters, or a failure in transportation logistics. Meanwhile, U.S. dependence on oil imports is expected to increase from just under 50 percent today to almost 60 percent by the year 2010, with the world's oil reserves increasingly concentrated in highly volatile regions. While the U.S. currently enjoys diversity of suppliers for its imports we remain at potential risk. Supplier diversity will not limit the serious economic impact of a cut in oil supplies.

The Administration is committed to a strong and viable SPR. We oppose the sale of SPR crude oil for revenue generation. We have proposed the one-time sale of seven million barrels to fund one-time costs of decommissioning the SPR Weeks Island storage site, and other life extension program costs. The Department is dedicated to maintaining at least the remaining 585 million barrel inventory within the Reserve for the indefinite future.

SPR Amendments

The Act currently contains several requirements long since satisfied or expired. Our bill contains many housekeeping provisions to update the Act and thus reflect changed circumstances and past accomplishments. The bill also includes a new initiative which was not in last year's bill—to store, for a fee, foreign-owned oil in underutilized Strategic Petroleum Reserve facilities. These amendments are addressed in more detail below.

The Plan: The Act currently requires the Secretary to maintain a Strategic Petroleum Reserve Plan, and specifies the details that must be included in the Plan. This was appropriate when the Reserve was in its planning phase during the mid and late 1970's. Now the Reserve consists of five storage sites with a cumulative 750 million barrels of storage capacity, and the Plan that details those sites has been completed. The Act also requires that the Plan specify the levels of fill for certain

years, all of which are now in the past. The Administration's bill proposes that the requirement for the Plan and Amendments be deleted. The one remaining part of the Plan which is still necessary is the Drawdown and Distribution Plan, Plan Amendment No. 4. The basic policy of distributing oil from the Reserve by competitive sale, contained in Amendment No. 4, is maintained by making that policy part of the proposed legislation.

It is the Administration's belief that free market sales are far superior to allocation as a method of distributing oil from the world's strategic reserves. While Plan Amendment No. 4 provides that public sales will be the primary method of distribution, it also allows the Secretary to allocate up to 10 percent of the sales volume. The allocation authority should be eliminated. The Department has never used this allocation authority, and its existence may encourage some consumers to count on the Government rather than the market for supplies in an emergency. It will also put elected officials in the difficult position of having to accept or reject requests for help from various constituent groups. The bill that we have recently forwarded reflects the Administration's belief in market mechanisms and the impracticality of allocation; it does so by codifying open market sales to the highest bidder as the method of distributing Strategic Petroleum Reserve oil.

Expansion: As the Committee is aware, the Department has been under statutory obligation to produce a Plan Amendment detailing expansion of the Reserve to one billion barrels. While we did conduct the requisite studies, analyses, and public hearings to pick sites and complete such a Plan Amendment, we have not taken the final steps in the process because it is clear that such a plan could not be implemented within the time horizon for which the studies were relevant. Due to budget constraints that we all recognize and the need to decommission the Weeks Island storage site, setting a schedule date for reaching a capacity of 1 billion or even 750 million barrels is unrealistic. Nevertheless, the Administration recognizes that the Congress has determined the ultimate size of the Reserve, and the proposed legislation requires that the Secretary report to the Congress on plans to expand at such time as a pattern of funding develops which would be likely to fill the existing facilities within five years. This deferred requirement would replace the current requirement that the Secretary submit a Plan Amendment for expansion to one billion barrels. Making the plan dependent on funding will prevent a premature plan that might be obsolete for environmental, commercial, or other reasons by the time implementation is needed. It will also avoid the unnecessary cost of preparing such a plan.

Statutory Fill Rate: The Act contains a requirement for filling the Reserve at a rate of 75,000 barrels of oil per day until the Reserve has reached 750 million barrels. This requirement has been waived regularly by several Congresses at the request of the Administration. Given that a 75,000 barrel per day fill rate is unlikely any time in the foreseeable future, and that the capacity of the Reserve will be reduced to 680 million barrels by decommissioning the Weeks Island site, the Administration bill deletes the requirement. The bill proposes to delete the linkage which makes sales authority for Naval Petroleum Reserve No. 1 crude oil contingent upon an SPR fill rate of at least 75,000 barrels. Because the fill rate will not be obtained, the annual waiver of the requirement has become a formality, and the cross-program linkage may complicate any change to the legal status of Naval Petroleum Reserve No. 1.

Regional Petroleum Reserves: The Act currently requires the establishment of a regional petroleum reserve in Federal Energy Administration regions that are dependent upon petroleum imports for more than 20 percent of their consumption. The Act also permits the Secretary to substitute crude oil for products and to store the oil in a reserve "readily accessible to" rather than actually located in such regions. Based on analytical findings and substantially higher costs for regional storage, the Department of Energy and its predecessor organizations have consistently determined that the storage of crude oil in the centralized SPR would meet the requirements of all regions of the country in the event of a petroleum supply disruption. Because the need for a regional petroleum reserve is not foreseen in the near future, and funding for such a program is highly unlikely, the Administration's bill deletes this requirement and references to regional and refined petroleum product storage.

Alternative Financing: Another issue addressed by the Administration's bill is Congressional review of alternative financing contracts. Despite a low likelihood of substantial acquisition of oil by direct purchase or any other means in the near future, there may be opportunities for alternative financing contracts, including oil "leases" or similar arrangements, that would reduce the financial requirements for oil stored within the Reserve. Unfortunately, current law imposes some requirements on alternative financing contracts that diminish the chances that such contracts could be successfully negotiated. Specifically, the Act requires that contracts

that would not otherwise require any Congressional action lie before the Congress for 30 legislative days before going into effect. This provision adds a time delay to already complicated contracts, and this increases the uncertainty as to a contract's final conditions. Our counterparts for any potential contract have been dissuaded by this requirement. To make alternative financing a viable option, the Administration bill proposes deleting the requirement for a 30-day congressional review period after a contract is signed; of course we will discuss our plans with the appropriate Congressional committees before any contract is signed.

Storage of Foreign Government-Owned Oil in the SPR: The Administration's bill includes new language to lease or otherwise store strategic oil for foreign governments in underutilized SPR capacity. Following the transfer of Weeks Island oil to other sites, the SPR will have approximately 80 million barrels of available and usable capacity that could be used to generate revenues for the United States Treasury. The Department of Energy proposes to store foreign-owned oil in underutilized SPR caverns through a mutually beneficial agreement with another stockpiling country. In addition to generating revenues for the United States, such an arrangement could prove advantageous both to other stockpiling nations and the U.S. by: providing economical storage to other countries, promoting global stockpiling, and preserving storage caverns for future use. In using this authority, the Department will protect both the integrity of the Reserve facilities for future Strategic Petroleum Reserve use and the ability of the United States to sell the United States Government's oil in an energy emergency.

INTERNATIONAL ENERGY AGENCY AUTHORITIES OF TITLE II

I now would like to turn to Title II of EPCA, which contains the authorities needed for U.S. participation in the International Energy Agency (IEA). The IEA was founded some 20 years ago in the wake of the Arab oil embargo and since that time has grown to be the primary forum for fostering cooperation on energy issues among the world's leading industrialized nations. Chief among it missions is to reduce member nations' vulnerability to energy emergencies—particularly, oil supply disruptions—by supporting efforts to improve energy efficiency, diversification of supply and international cooperation in energy research and development.

In anticipation of oil supply disruptions of the type experienced in 1973, the IEA's founding charter, the Agreement on an International Energy Program (IEP), provides for an emergency response system based on allocating oil supply among members according to a established formula. The Emergency Sharing System, as it is commonly called, was typical of 1970's style command and control solutions to energy supply problems; and the U.S. supported it as it seemed to be the right idea in an era of domestic price and allocation controls.

Starting in the late 1970's, however, U.S. energy policy, in general, shifted away from exercising regulatory powers to finding more flexible, market-oriented solutions. Since 1984, our policy regarding severe oil supply disruptions has been to rely on market forces to allocate oil supply and to ordinarily supplement supply by the drawdown of the Strategic Petroleum Reserve in coordination with our allies and trading partners. Also in 1984, at the urging of the U.S., the IEA Governing Board agreed in principle that coordinated stockdraw by IEA members was a necessary and desirable component of responding to an oil supply disruption, particularly in its early stages.

With regard to IEA emergency response policy, it is our view that member countries should rely on stockdraw and measures complementing stockdraw for as long as practicable, and additionally, that this policy should be pursued by the IEA regardless of the size of the disruption. In other words, even if the disruption is large enough to activate the Sharing System, we believe stockdraw is the appropriate first response. As a corollary, it is our position that the Sharing System should be activated only as a last resort. On the other hand, as part of our obligation to our allies, we remain firmly committed to all of our IEP obligations, including full support of the Sharing System, should it ever be activated.

Recognizing the integrated and growing dynamic nature of the oil market, we have continued to promote our policy of market reliance and stockdraw as the most effective way to mitigate the economic damage of a supply disruption. In February 1995, the IEA Governing Board, in response to a proposal put forth by the U.S., took another major step in updating its policy in the face of a changing oil market environment. The Governing Board agreed that in the event of a disruption which approached the threshold for triggering of the Sharing System, the IEA first would consider a response based on the coordination of government stockdraw and complementary measures. This policy should result in a flexible IEA response system

that will complement the market's own reaction to a disruption, while maintaining the IEA foundation of willingness to share the shortfall if necessary.

Reauthorizing EPCA Title II authorities with the amendments we propose will demonstrate our ongoing commitment to the IEA and provide additional underpinning to our preferred market-based response policy.

In support of our ongoing commitment, we urge the Committee to retain the authorities now included in EPCA. In this connection, we ask you to extend Section 251, which provides for mandatory international allocation should this ever be required. Such mandatory allocation is a last resort in Sharing System operations, and cannot be imposed on a country by the IEA; the decision to implement lies with each member. Although the Sharing System may never be implemented, this section of the statute is highly symbolic of our support for the IEA, particularly for those members who need reassurance that, despite our concerns about the Sharing System, we remain fully committed to the cooperative energy security goals of the IEA.

Section 252 provides limited antitrust and breach of contract defenses to U.S. companies in connection with their voluntary participation in the planning and implementation of the Sharing System. Activities covered include: consulting in IEA meetings concerning disruption situations and possible response actions; providing supply information required for such consultation and otherwise required to implement the Sharing System; making voluntary offers to buy and sell petroleum so as to achieve the international distribution of supply intended by the Sharing System; and taking part in System exercises and tests.

The various rules governing company activities are set out in great detail in the Voluntary Agreement and the Plan of Action required by this section. The statute requires the government, including the Department of Justice and the Federal Trade Commission, to closely monitor company activities and maintain extensive records of such monitoring. In their reports to Congress, both Justice and the FTC consistently have concluded that the companies' involvement has had no anti-competitive effects.

The additional underpinning we seek for our preferred IEA policy involves amending the limited antitrust defense to make clear that we can take advantage of U.S. company expertise in connection with coordinated drawdown of government-owned and government-controlled petroleum stocks, and other actions taken by IEA member governments to complement stockdraw. In doing this, our IEA-related authorities will be brought into line with our oil disruption response policy.

This clarification sends a clear message to our IEA partners that we are committed to a policy of reliance on coordinated stockdraw as a first line of defense for oil supply emergencies, even to the extent that we make the necessary changes in our law.

The proposed section 252 amendment was developed in conjunction with the Department of Justice and FTC, and we feel confident that the safeguards we have built in are sufficient.

EFFICIENCY AND RENEWABLES PROGRAMS IN TITLES II AND III

Title II of the EPCA authorizes the Committee on Renewable Energy Commerce and Trade (CORECT) and the Committee on Energy Efficiency Commerce and Trade (COEECT). Title III of EPCA established the State Energy Conservation Programs (Part D) and the Energy Conservation Program for Schools and Hospitals (Part G). The proposed legislation provides authority for these valuable and successful programs through fiscal year 2001.

These programs have taken on renewed importance as a result of the resurgence of interest in energy efficiency and renewable energy use in the 1990s and the opportunities to move these technologies into international markets. This renewed interest is tied directly to concerns for economic security, expanding the U.S. share of efficiency services and renewable markets, and concerns for environmental sustainability. These concerns—energy, environment, and the economy—culminated in the passage of the Energy Policy Act (EPACT) of 1992. The EPACT places a renewed emphasis on deployment of sustainable energy technologies and the programs authorized in EPCA are central to achieving this goal.

Committees on Renewable Energy Commerce and Trade and Energy Efficiency Commerce and Trade

The Administration strongly supports reauthorization of these programs to promote the export of U. S. energy efficiency and renewable energy technologies and products. The world is 85 percent dependent on fossil fuels for its energy, and energy consumption will continue to grow for the foreseeable future—particularly in developing countries.

Sustainable energy technologies—energy efficiency and renewable energy—will plan the major role in meeting Global Climate Treaty goals. This is true for both the developed and the developing nations. International market opportunities for new "green" products and services are enormous. Currently, there is a global market of an estimated $200 billion for more environmentally benign goods and services.

The Committee on Renewable Energy Commerce and Trade (CORECT) is an inter-agency committee whose 14 Federal agency members, in conjunction with representatives of private industry, develop and implement strategies for the enhancement of U. S. exports of renewable energy technologies. CORECT coordinates its efforts with the Trade Promotion Coordinating Committee (TPCC) chaired by the Department of Commerce to assure a unified approach to export assistance.

Current CORECT efforts are focused on increasing U.S. exports to rapidly growing renewable energy markets in Latin America and in Asia where more than 2 billion inhabitants currently do not have access to electricity. In recognition of the economic benefit that will result from gaining access to these large markets estimated to be worth over $100 billion in the next decade, Japan and the European nations are providing significant assistance to their domestic renewable energy industries and to the countries in the region to utilize their technologies. CORECT inter-agency committee efforts are geared to promote the effective coordination of available U.S. government programs which could assist U.S renewable energy firms which are predominately small or medium-sized businesses. The CORECT efforts begun FY 1994 have thus far enabled U.S. industry to begin the development of approximately 200 business opportunities in Latin America which have an aggregate value of over $1.5 billion. Potential markets in Asia are even larger and in FY 1995 the CORECT inter-agency began efforts to aid U.S. business to effectively compete in those markets.

The Committee on Energy Efficiency Commerce and Trade (COEECT), created in accordance with Section 1207 of the Energy Policy Act of 1992, seeks to replicate CORECT's success for the U.S. energy efficiency industries. Because the potential worldwide efficiency market is estimated at $84 billion per year for the next ten to fifteen years, COEECT's efforts are also crucial to the success of public/private coordinated export assistance efforts. COEECT's interagency working group of fifteen Federal agencies coordinates actions and programs affecting energy efficiency export and assists the U.S. energy efficiency industry to compete in the international market. COEECT's coordinated activities unify interagency strategy and leverage the limited export assistance. The Export Council for Energy Efficiency (ECEE), a consortium of five energy efficiency industry associations, provides consistent consultation from industry and assists COEECT to identify target geographical regions and develop export strategies. COEECT is assisting industry, especially small and medium-sized businesses to tap the world market potential for energy efficiency. In general, these companies could not afford to develop business outside the U.S. without this assistance, in tapping the world market potential for energy efficiency. One sector of the energy efficiency industry alone, the energy services sector, estimates the rate of international investment has gone from close to zero five years ago to $30 million in energy efficiency and renewable energy project investments this year and points out that DOE's export programs coincide with a dramatic international expansion of the US performance-based efficiency industry. COEECT has already been instrumental in establishing the Energy Efficiency Unit of the European Bank for Reconstruction and Development (EBRD) and succeeded in getting energy efficiency as a key priority when loans are made through EBRD. Currently COEECT is coordinating its efforts, especially those to assist US business in the Asian and Latin American markets, with CORECT, its renewable energy counterpart; however, the differences between the two industries' targeted markets and countries requires this specialized focus.

State Energy Programs

In FY 1996, the Department is restructuring the ICP and SECP activities into a block grant program and is working with the States to consolidate these programs into a new, more flexible, State Energy Program. The reauthorization bill will allow us to execute the responsibilities of the existing programs.

Energy Conservation Program for Schools and Hospitals

The Institutional Conservation—or Schools and Hospitals—Program (ICP) provides 50/50 matching grants to public and private non-profit institutions to help them save energy—and thereby reduce their operating costs. They are used for detailed energy analyses and for the installation of energy-saving capital improvements. From 1979 through 1994 over 69,000 buildings were made more energy effi-

cient; cumulative savings are estimated at $6.1 billion, over five times the Federal investment, and of course they continue to grow.

States also can act as coordinating agencies for ICP and award grants directly to institutions or use the federal funds for program, technical, and marketing assistance as long as they provide third party financing for energy conservation measures (ECMs) in the institutions. This program fosters substantial private sector leveraging for the states.

State Energy Conservation Program

The States have a key role to play in sustainable technologies. Areas of focus for State programs, in partnership with DOE over the next decade, include: alternative fuels and alternative fueled vehicles; efficient electric motors and drives; power production from renewable resources; integrated resource planning; industrial waste minimization and waste-to-energy technologies; building efficiency; and solar industrial process heat. These are but a few of the specific areas where States must play a major role in helping to define and to implement our national energy agenda.

The State Energy Conservation Program (SECP) was enacted to promote energy efficiency and the adoption of renewable energy measures and to reduce the growth rate of energy demand. An important new program goal, for each State, is a 10 percent improvement in its energy efficiency by the year 2000 compared with 1990. Funding is formula based and is provided for the implementation of State plans submitted each year to DOE.

States also serve as laboratories where innovative approaches to energy challenges are devised, tested, and—subsequently—replicated on a wider scale. There are many examples of successful innovations begun in one State and later adopted by others. The Indiana Department of Commerce and Energy Policy, for example, operated a revolving loan fund—under its SECP program and using petroleum violation escrow funds—to help finance "cutting edge" commercial and industrial energy efficiency technologies. The $6.8 million loaned by the State, under this program, leveraged an additional $24 million in private capital. The result was significant energy and cost savings for the 10 participating enterprises. A Wyoming electric motor testing project has resulted in several spin-off demonstrations of energy efficient motors including projects that directly benefit DOE's pumping operations on the Naval Petroleum Reserve near Caspar. Other examples include a range of education, testing, and alternative fuel programs—targeted at fleet operators—which has reduced petroleum consumption in many States. Washington, California, and Hawaii have instituted telecommuting programs. Several others, including Indiana, Alabama, Colorado, Vermont, New York, and Georgia, have established successful industrial technical audit programs.

The SECP is a key source of support for the State Energy Offices; without it many would not exist or would be severely curtailed. The State Energy Offices, in addition to managing the SECP, also administer the Schools and Hospitals and—in many cases—the low-income Weatherization program. Maintaining a strong State Energy Office capacity, and the delivery network these offices comprise, is essential to the success of EPACT—and coordinated energy, environmental, and economic policies for the 1990s and beyond. The Federal government, by reauthorizing this program, sends a strong signal of support for the deployment of energy efficiency and renewable energy technologies, services, and products—and its understanding of the vital role of its partners in State government.

The Alternative Fuels Truck Commercial Application Program

The objective of this program is to develop and implement demonstrations of heavy-duty vehicles using field-test engines operating on alternative fuels. The goal of these projects is to move heavy-duty alternative fuel engine technology towards commercialization and to widen the awareness and acceptance of alternative fuels in heavy-duty applications. In addition, as commercial technology becomes available, the program will evaluate the performance, cost, and emissions of alternative fuel vehicles compared to conventional diesel and gasoline vehicles.

Under the alternative fuel heavy-duty vehicle program the Department is cooperating with municipalities, state and local governments, other Federal agencies, and private fleet operators to test the real-life operation of vehicles running on alternative fuels. The program tests trucks running on methanol, ethanol, compressed natural gas, biodiesel, and propane. Since heavy-duty trucks are typically very expensive, the program shares the cost of the test vehicles with private fleet owners or state or local governments.

The program consists of over 350 alternative fuel heavy-duty vehicles and 40 control vehicles. The vehicles are located in 26 states throughout the country and represent the following applications: local delivery trucks, line haul trucks, garbage

packers, dump trucks, snow plows, airport shuttles, street sweepers, and school buses.

This is a valuable program that contributes to the advancement of alternative fuel transportation technologies that are necessary to meet the Energy Policy Act goals to reduce U.S. reliance on imported oil and lessen the environmental impacts of energy use in the transportation sector.

Conclusion

In summary, the energy security and sustainable energy programs updated and extended by the Administration's proposed bill are central to our national energy, economic, and environmental strategies. I urge you to reaffirm our commitment to these programs and ask for your assistance in the passage of this bill.

That concludes my prepared testimony. I would be glad to answer any questions.

Mr. SCHAEFER. The committee thanks the gentleman. I would turn to the gentleman from North Carolina.

We have to apologize to the people in the room. There is a Superfund hearing going and some of the members of this committee are up there and will be going back and forth.

The gentleman from North Carolina.

Mr. BURR. There are several members, Mr. Chairman, that are glad they are not in the Superfund hearing.

Mr. SCHAEFER. If the gentleman has an opening statement, he is welcome to read it or it can be submitted as part of the record.

Mr. BURR. I would like to read it and also make some comments, if I may, Mr. Chairman.

Mr. SCHAEFER. The gentleman is recognized for that purpose.

Mr. BURR. If you will, please pass on to the Secretary that I have a great respect for her and for the agency, and I find myself once again at a hearing where at 7 o'clock last night I did not have the testimony of a DOE witness. I was told by my staff that last Tuesday the DOE was notified of the hearing. As a matter of fact, last week I sat in a hearing where all five FERC commissioners, including the chairman, had their testimony to us 36 hours prior to the hearing.

I find it offensive that DOE would call continuously my staff any time that they are in front of this committee to, one, ask if I was going to be in attendance, two, ask if I had questions or concerns that they could answer, and three, were not professional enough to supply me their testimony so I knew whether I had questions or concerns.

Quite honestly, Mr. Simpson, this cannot continue. If it does continue, I will work as aggressively as I can as a member of the Commerce Committee to see that DOE changes. I'm trying to be thoughtful in my choice of words, but I can assure you that I will follow this up with the Secretary in the form of a letter.

I'm really sorry to go on. I find myself doing this every time DOE testifies. It is a chronic problem. We are an oversight committee. We are elected to determine whether what you do is correct or incorrect. Sir, without the ability to read your statements, you put us at a tremendous disadvantage to represent the people who have asked us to come here. Please pass that message to the Secretary for me.

Mr. Chairman, I look forward to the hearing. I come with many questions. I understand that we will be focusing primarily on the Strategic Petroleum Reserve, the International Energy program, and the State Energy Conservation program.

With regard to the SPR, I will be interested to learn from our witness several things:

How much does it cost annually in upkeep?

When or will we reach the 1 billion barrel mark?

Should the U.S. lease out our excessive storage capacity to other countries?

What is the real time delay from a drawdown to market?

Should the U.S. investigate the idea of refined product reserves in addition to crude reserves?

Should the oil in the SPR be sold on the open market to make up for budget shortfalls?

On the issue of the International Energy program, I will be interested to learn if we should continue this partnership. It is my understanding that since our participation began in 1974 there has been relatively no action needed. It is further my understanding that it would take a 7 percent global shortfall for action to be required. What is the actual likelihood of that kind of shortfall in the near or distant future? What would have to happen to cause such a shortfall?

The last thing we will focus on is the State Energy Conservation program. Under this program DOE provides technical and financial assistance to the States, territories and the District of Columbia.

I find this program both fascinating and a bit confusing. I learned that my home State of North Carolina used its funds in 1991 to set up a computerized routing system for all public school buses. That system saved my State 2.5 million gallons of fuel.

I would need to do further investigation, but I would assume that the system is still in place and continues to save taxpayers a tremendous amount of money and accomplishes the goals of reduced energy dependency.

I learned that in Massachusetts they spent their money to identify $300,000 in energy savings at a frozen dessert plant. It is claimed that those savings kept the plant from moving to a different State.

These two examples are so different that it has prompted concerns about the oversight of the program. I will be interested to learn what are the criteria of the fund. Does this project need to have long-range effect, or can the money be used for a one-time, quick fix to a problem?

Mr. Chairman, I thank you for the opportunity to participate in this hearing and I thank the witnesses that will testify today, and I hope that this in fact as it relates to my relationship with the DOE is the beginning of a new relationship versus a continuation of one that is extremely sour in my mouth right now. Thank you, and I yield back.

Mr. SCHAEFER. The Chair thanks the gentleman.

The gentleman from Oklahoma, Mr. Coburn.

Mr. COBURN. Thank you, Mr. Chairman.

The circumstances under which the Energy Policy and Conservation Act was passed in 1975 have changed. We are no longer facing chronic energy shortages. If anything, there has been a glut leading to low prices that have forced many in our domestic oil and gas industry out of business.

However, one very serious problem still remains, and that is this country's dependence on foreign oil. This year, for the first time ever, the United States imported more oil than it produced domestically. This presents both an economic as well as a national security dilemma for our country.

I agree that it's appropriate to review these various energy conservation programs as to their suitability for current circumstances, but when we talk about the problems that no longer exist, like gas lines, we should not forget about the problem that does still exist, and that is dependence on foreign oil. Our country needs an energy policy that recognizes the importance of our domestic oil and gas industry. We should be looking at tax incentives and regulatory relief that can help keep our domestic industry healthy and preserve our energy security.

While our country imports oil from the Middle East and subsidizes wind and other alternative energy experiments, I have small companies in my district that are capping existing marginal wells as we speak that still have oil and gas in them because they cannot afford to continue drilling or pumping. That doesn't make any sense to me.

I look forward to the testimony and I am anxious to hear what proposals our witnesses have to offer to deal with our country's foreign oil dependence and the health of our domestic energy industry.

I also, Mr. Chairman, have a knot in my stomach this morning, because once again we read that the Department of Energy has wasted $43,000 on sizing up reporters that do evaluations of the Department of Energy. This is the same Department of Energy that wants $300 million more this next year so that they can downsize.

I'm sorry that you're the one that is going to have to take the brunt of this, but the fact that your department is not interested in saving taxpayer dollars and is more interested in public relations is the very reason why the freshmen in this Congress are incited to eliminate this department. I will tell you that this is a wonderful piece of news for us to use to carry our case to the people of this country about the inefficiencies and the lack of responsibility and the lack of accountability from this department.

I don't know what is going to come of this, but I am certainly going to push, Mr. Chairman, to see that we have some oversight into the wasteful spending of this money. I wonder if we have ranked the Congressmen on whether they are pro or negative and whether we paid an outside firm to determine who we talk to and how we get our information in terms of making decisions about the Department of Energy.

Mr. Chairman, this probably isn't the forum for this, but I think this is too important an area to fail to be noted, and I would yield back and then concentrate the rest of my comments and questions on the subject at hand.

Mr. SCHAEFER. The Chair thanks the gentleman. We are not going to adhere to the 5-minute rule simply because we do not have a full staff here today, so we can get all the questions in that either of the gentlemen want to ask.

Mr. Simpson, in your estimation, how much oil can DOE sell per day or per month from the SPR and not negatively impact oil prices? How much can we dump on the market and still not mess up the market?

Mr. SIMPSON. Mr. Chairman, that is a difficult question to answer. There are a couple of ways that we have looked at that question. One is to look how the fill rate that we were using affected markets. The analysis of that activity indicated that even when we were filling the Reserve at some 300,000 barrels a day that there was minimal impact on the market.

On the other hand, at this time the markets are softer than in general when we were filling the Reserve. We paid considerably more for the oil at the time we were filling it than the market would support today. There are estimations that I have seen from certain economic organizations that a sale of 100,000 barrels a day could have some small impact on the market.

What we are trying to do to mitigate is to stretch over as long a period as would be economically feasible the sale of the 7 million barrels. Currently we do not have the authority to sell the 7 million barrels, and we began to move oil out of the Weeks Island facility yesterday. What we would prefer is to be able to sell it in as small increments as possible as we move it through this pipeline system to Bayou Choctaw and Big Hill over the next 11 months or so.

Mr. SCHAEFER. Once you start selling this oil, which, as you know, Mr. Tauzin and I have strongly disagreed with you on, what part of the energy industry is the most vulnerable? Is it not the small producers?

Mr. SIMPSON. I think it would be any part of the industry that has the lowest margins on their production.

Mr. SCHAEFER. It would the small producers in Mr. Coburn's State and my State of Colorado. I don't know about North Carolina. But these are the ones that we were concerned with.

You mentioned a little factor that I want to bring back again. I have the memo in front of me of your opposition to the Tauzin-Schaefer amendment on the floor that wanted to stop the sale of this oil. That was oil that we paid $34 a barrel for and we are selling it for about $15. That to me was not a very good bargain for the American people. Ignoring the fact that as far as we were concerned in opposing our amendment the Department engaged in illegal lobbying.

Now to get on to another subject. We have what, about 500 million barrels in the SPR?

Mr. SIMPSON. Five hundred ninety-two million.

Mr. SCHAEFER. It's set to be able to hold a billion approximately?

Mr. SIMPSON. Seven hundred fifty million is what we have the capacity to hold today.

Mr. SCHAEFER. After this sale we are going to have about how much in there?

Mr. SIMPSON. Five hundred eighty-five million.

Mr. SCHAEFER. Do you think we should keep the SPR?

Mr. SIMPSON. Absolutely. It's our first line and the primary line of defense against supply disruption.

Mr. SCHAEFER. You indicated that you have no more intention on selling any oil besides this 7 million which you are in the process now of doing; is that correct?

Mr. SIMPSON. That is correct.

Mr. SCHAEFER. I want to get to this Weeks Island thing. Once you get through this you are going to raise about $100 million?

Mr. SIMPSON. Yes, sir.

Mr. SCHAEFER. As I understand it, only about $60 million of that is going to be used to restore Weeks Island. Where is the other money going?

Mr. SIMPSON. It will be somewhat more than the $60 million, but the other money will go into replenish the accounts for activity that we are working now to extend the life of the Reserve for 25 more years. Since the Weeks Island activity takes more than a year to complete, we wanted to get the money up front to do all of the work, which we have estimated to cost somewhere between $60 million and $100 million, and we will have to borrow the money out of the accounts that we would be using to do the life extension work that we are also trying to complete.

Mr. SCHAEFER. On average, what does it cost per year to maintain and operate SPR?

Mr. SIMPSON. Just over $200 million a year.

Mr. SCHAEFER. How much did the Department request in its new budget authority?

Mr. SIMPSON. In the 1996 request we asked to be able to spend just over $31 million. I may ask staff to give me the exact numbers, but $100 million of it would come from this account, and then the remaining balance would be out of funds that we have already available from sales, and now appropriation.

Mr. SCHAEFER. To make up the $210 million?

Mr. SIMPSON. Correct.

Mr. SCHAEFER. Am I correct in saying that there was no new budget authority, new money was zero?

Mr. SIMPSON. Yes, in the appropriations bills already passed by the House and Senate.

Mr. SCHAEFER. How are we going to go at maintaining and operating in the year 1997?

Mr. SIMPSON. Mr. Chairman, that's the question that we have to put on the table and put before Congress. We have no choice, in our view, but to make the request for the authority for all of that budget authority and the appropriation to do the work that needs to be done to maintain the Reserve.

Mr. SCHAEFER. So in fiscal year 1997 you are going to request $200 million?

Mr. SIMPSON. I can't speak to that.

Mr. SCHAEFER. Is that going to be necessary to keep it operating?

Mr. SIMPSON. It will be necessary.

Mr. SCHAEFER. Otherwise we have to start drawing down?

Mr. SIMPSON. Or cut other programs that are also important for the future of the industry.

Mr. SCHAEFER. Looking at this 7 million barrels, that was $100 million. So 14 million barrels would have to be sold in order to make up the $200 million if we were going to dip into it again.

Mr. SIMPSON. If one was going to dip into that, that's correct.

Mr. SCHAEFER. That's current prices.

Mr. SIMPSON. Right.

Mr. SCHAEFER. Your testimony discusses the importance of U.S. energy security and reviews the Administration's initiative. Could you please tell the committee what these initiatives are to increase energy production since we can't conserve our way to total energy security?

Mr. SIMPSON. Certainly. In times of fiscal restraint where we are trying to reduce the budget what we have focused our attention on is to find cost-effective ways to improve the productive capacity of our Nation's oil and gas reserves. One of the things that we have worked hard to get done was passed yesterday by the House with the deep water royalty relief measure. I think that is a very significant step, cost-effective step for the U.S. ability to produce oil.

Likewise, the elimination of the export of Alaskan North Slope crude oil will have a major impact on the ability to produce more oil from both Alaska and California where that oil from Alaska had been artificially reducing prices in the California markets.

Other things that we have focused on to reduce costs include activities with the Minerals Management Service to provide end of life royalty relief for marginal wells on U.S. property, to try to produce as much of the reserve out of the wells as we can, because we are well aware that once the wells are closed it is very expensive to reopen these.

We have promoted activities that will reduce the cost of complying with Federal regulations.

Mr. SCHAEFER. Can you expound on that one a little bit?

Mr. SIMPSON. Sure. Another good example of that one would be the Oil Pollution Act of 1990 where we have endorsed reducing the insurance requirements from $150 million to $35 million based on the risk that is incurred in an individual operation.

Another one would be the cost of complying with royalty collection payments—disputes over Federal lands with the Minerals Management Service. Their pilot program to allow gas production from Federal lands to be paid in kind goes a long ways to reduce the amount of dispute and litigation over royalty payments.

The list is fairly lengthy as one moves through those activities to try to reduce those costs.

Let me go also to the research and development programs in the fossil energy office and the laboratories of the Department of Energy where we work in conjunction with industry and all our projects are cost shared where they pay at least 50 percent of the cost.

Over the last 12 years the cost of finding and producing oil and natural gas in this country has been reduced from $20 a barrel equivalent to $5 a barrel equivalent. That is due to technology. The 3-D seismic work, and now moving into the fourth dimension of time, which will allow the seismic activity to see through the subsalt layer of the OCS, should dramatically increase our productive capacity in this country.

But these are new technologies that have only in recent years begun to be well known. The approach that we have taken to reinvent our R&D programs while we are reducing the amount of money that we spend on them is to have industry tell us where

they think the work needs to be done, and we set that up in a number of ways to do that.

Mr. SCHAEFER. I applaud the ones that you did mention. I think that would go a long ways. The Chair has some more questions, but I am going to turn right now to the gentleman from North Carolina and let him proceed.

Mr. BURR. Thank you, Mr. Chairman.

Annual operating cost currently is $200 million. Is it safe to assume, Mr. Simpson, that once the improvements are made to the facility that that annual operating cost will go down?

Mr. SIMPSON. Yes, sir. Right now it's about 40 cents a barrel in annual operating costs. We think when the life extension program is completed that it will drop down to 30 cents a barrel.

Mr. BURR. How big does the SPR need to be for it to still be a strategic issue for us?

Mr. SIMPSON. It is difficult to know. If the question is, can we reduce the size of it, we would argue that the answer is no. The reason that we would argue that is our consumption as a Nation is going to continue to rise and the percentage of our consumption supplied by imports is going to continue to rise. The rest of the world's consumption is going to rise 20 million to 40 million barrels over the next 15 years beyond the 70 million barrels that it consumes today. The vast majority of that oil to meet that market demand is going to come from regions of the world that are unstable, and we need to protect ourselves against any disruptions that might occur.

To reduce the SPR size we would argue, is not a good idea.

Mr. BURR. I appreciate your overview of the world oil market. At what point do we reach a situation in the definition of barrels that the SPR is no longer in our strategic interest?

Mr. SIMPSON. I'm not sure I understand your question.

Mr. BURR. We have a facility that currently has 592 million barrels of oil approximately with a capacity of 750. The storage level is equivalent to approximately 74 days. At what point would we reach a decision that because of the number of barrels that we have there that we have reached a point where that is not a strategic advantage to this country?

Mr. SIMPSON. If one looks at the International Energy Agency agreements, the level that has been set for stocks in storage is 90 days. That accounts for the government-owned stockpiles plus all of the stocks that are privately owned and moving through the system. If you add those two things together, in our system we have about 175 days of capacity with the private stocks and the government-held stocks, but we are a long way from getting to the point where it would not cover a strategic requirements for us. We would have to double our level of imports before we would get to that point; at least double it, if you were to use that calculation.

Mr. BURR. Let me suggest to you that I'm still looking for a barrel number. Let me approach it from another angle. I can assure you we've got a journal vote and I don't mind missing it.

Obviously DOE felt that 592 was too much, because they suggested we could sell 7. Now we are down to 585. Is that the right number?

Mr. SIMPSON. No, and I would disagree that we thought that 592 was too much.

Mr. BURR. You suggested or signed off on a sale that was not in what DOE felt was the best strategic interest of our country?

Mr. SIMPSON. We signed off on a sale that we felt we could maintain all of the priorities of the Department in the context of the strategic interest of the country.

Mr. BURR. Is strategic interest of the United States not a primary priority?

Mr. SIMPSON. Yes, sir, and other things that the Department does.

Mr. BURR. Are we compromising our strategic interest?

Mr. SIMPSON. No.

Mr. BURR. Then 585 is an adequate number?

Mr. SIMPSON. At this time 585 is an adequate number.

Mr. BURR. Would you take me down from there to where we reach the point in barrels that we no longer have an adequate supply to protect our strategic need in the international oil market?

Mr. SIMPSON. Begging the indulgence of the Congressman, I would prefer to answer that question in a written piece.

Mr. BURR. Your record with me on written pieces is not real good right now, Mr. Simpson.

Mr. SIMPSON. I appreciate that. Before you came in I also committed that we would meet that 2-day requirement to have testimony coming in. There's no excuse for that.

Mr. BURR. Even though I'm not a lawyer, I would advise you to talk with the Secretary prior to making any commitment that DOE can't live up to.

Is 553 enough?

Mr. SIMPSON. We are going to have to move 72 million barrels out of the Weeks Island site. It has been proposed in the Senate that we sell 32 million barrels. We would oppose that.

Mr. BURR. We are making progress. I've got 560 and we're at 585. Somewhere in between that? Are we close?

Mr. SIMPSON. It would sustain our national security purposes.

Mr. BURR. I'll allow you to answer that one in writing, but if it's not in barrels, you and I will be sitting in this same room having the same discussion until we come up with a barrel number. I hope we can agree on that.

[The information follows:]

The Energy Policy and Conservation Act as amended provides for increasing the inventory of the Strategic Petroleum Reserve to 750 million barrels. From the perspective of energy policy the Department continues to support that long term goal to assure that the Reserve is effective at deterring and alleviating disruptions.

The Administration's proposal to sell 7 million barrels of oil in FY 1996 is required because of the need to fund an unforeseen, environmentally driven necessity to decommission the geologically unstable Weeks Island site. Failure to fund that activity would substantially reduce the strategic value of the reserve much more than the marginal value of the 7 million barrels of inventory. The Administration also accedes to the Congressional desire to sell 32 million barrels of oil as part of the 7-year budget plan currently being negotiated by Congress and the Administration. While such a sale would have a negative impact on our efforts to encourage others around the world to build and maintain strategic stocks, 553 million barrels of oil is sufficient to mitigate most plausible oil disruption scenarios. Reducing the Reserve's inventory to this level appears to be a necessary trade-off with the Congress in order to bring our fiscal house into order. Nevertheless, the Administration

believes that over the long term, once fiscal priorities permit, oil acquisition should be resumed.

Mr. BURR. How many times can you draw down that oil storage and refill that cavern?

Mr. SIMPSON. Five times.

Mr. BURR. Does that do any damage structurally to the cavern?

Mr. SIMPSON. That's the reason we can only do it five times. The pressure of the flows of the brine and oil moving around tends to decay the capacity and hurt the integrity of the caverns.

Mr. BURR. How does that impact the ability to lease excessive storage?

Mr. SIMPSON. That's a good question, and it is the primary driver behind what any agreement would be that we would enter into if Congress gave us the authority to lease that space. There is no way that we could enter into any agreements that would jeopardize our ability to utilize the facility for our own interests.

Mr. BURR. As long as we don't do it five times, DOE does not feel they have jeopardized our strategic positioning. Is that it?

Mr. SIMPSON. Yes. An arrangement that we would have to enter into would have to assure our ability to do a drawdown to meet our needs five times. So this means we could draw this thing down completely and fill it back up five times.

There are some incidental movements that one could incur that would not jeopardize the caverns, and we are not talking about a majority percentage of the oil that would be there. We are talking some 60 million to 80 million barrels of excess capacity after we close the Weeks Island facility that we could use for foreign oil. Preserving the ability of this country to use that Reserve to protect its interests is paramount in any decision that we would make or any agreement that we would make to store oil of another party.

Mr. BURR. I'm certainly not as well versed as Dr. Coburn and Chairman Schaefer as it relates to the oil business. My learning curve is a little greater. I'm trying to make that transition as quickly as I can. There are differing degrees of crude in the marketplace. Is that a fair statement, that the quality of the crude varies depending upon where that crude comes from?

Mr. SIMPSON. Yes, sir.

Mr. BURR. How do you lease in a cavern excess space with varying degrees of crude and assure one that they don't get a lower grade because you have stored a lower grade or somebody gets a higher grade because they put in a lower grade? Maybe it shouldn't be a concern, but I have a feeling at some point it's a question that somebody is going to ask me that I don't have an answer for.

Mr. SIMPSON. It's a very legitimate concern and it's one that we have been looking at as we go through these proposals. Obviously we can't partition a cavern. There are some caverns that we have different qualities stored in different areas and there are some caverns actually where we could work an arrangement to store exclusively oil for another party.

There is also the ability in the marketplace to value various gravities of crude and qualities of crude so that you can come up with an actual mathematical calculation as the marketplace does daily as it trades one type of crude for another type of crude. As one goes through and examines how you would come to a contract

to lease you would have to consider those things: Do you need to segregate the oil? Can you commingle the oil? Can you use the swapping mechanisms in the international oil trading markets to manage the outflow? Each of these things would have some effect on the value of the lease arrangement. The simpler it is, probably the more valuable it is; the more complicated it is, the more it would cost them.

These are all questions that can be worked out, but they are also things that are well understood by the people who run this Reserve.

Mr. BURR. What is the real time delay from a drawdown to market?

Mr. SIMPSON. Less than 30 days is what my staff is telling me here. Once you start moving the oil, the market will take care of it almost instantaneously as the swaps occur and cargos move from place to place. What we are really doing is backfilling the existing supply.

Mr. BURR. Let me go back to leasing excess storage. Foreign oil comes in to the leased space. We have an energy emergency in this country. Whose oil is in that storage facility?

Mr. SIMPSON. It would be our oil and their oil.

Mr. BURR. What if we ran out of our oil?

Mr. SIMPSON. It would be a long time before that would happen, but to answer your question, I think that is something we have to consider as we put this thing together.

Mr. BURR. Do you define a long time as 74 days?

Mr. SIMPSON. No. We could not deplete that facility in 74 days. That's what the capacity is. We can only take the oil out at 3 million barrels a day right now.

Mr. BURR. So if we had a tremendous energy shortage in this country and we had to utilize a 74-day supply, given the 3 million barrel per day output that we can bring out of the cavern, we might not be able to extract that oil fast enough to meet the crisis that we have at hand? We really don't have 74-day supply.

Mr. SIMPSON. We do. When you count your reserve you also count private stocks. So we have actually 174 days of supply in this country.

Mr. BURR. I've learned that one of the problems we have up here is a remedial arithmetic problem. At 3 million barrels a day for the roughly 600 million barrels we have in there it would take us 200 days to remove that oil from the cavern. If the need that we have in this country is of a nature greater than 3 million barrels a day, then we will have a shortage on day one; is that correct?

Mr. SIMPSON. No, because there are private stocks.

Mr. BURR. That we leverage against?

Mr. SIMPSON. That would flow in. There are a number of days of private stocks that will be in place and move before they are depleted, before we would then be in the situation that you describe.

Mr. BURR. Is it unfair to suggest that we have a 74-day reserve? We couldn't get it out in 74 days, could we?

Mr. SIMPSON. No.

Mr. BURR. We have the capacity to extract 3 million barrels a day for 200 days?

Mr. SIMPSON. That's right, and after we complete the work that we are doing now we will have 3.9 million barrels a day capacity that we can get out.

Mr. BURR. I appreciate your patience with me. I realize that I may be covering ground that you think are decisions that have already been made up here, but humor me and stick with me for just a little bit.

Should the U.S. investigate the idea of refined product reserves?

Mr. SIMPSON. We don't think so. The Act gave us the authority to examine that question. We have looked at it. The cost of maintaining refined product reserves is substantial. We also find that the market does a very good job of moving refined products to where they need to be.

If we were to try to predict which refined product we would be short of in an emergency, a natural disaster is actually a good way to look at this. If you had hurricanes come through and take out facilities along the Gulf Coast or some international supplier and instead of having gasoline in storage we had jet fuel, we would have spent money to store something that we didn't need. Or conversely, if one would spend a lot of money to store a whole bunch of all products. It's better, in our view, to let the marketplace move that product and make that product and shift, and it will do that rather quickly, than for us to try to supply the refined products. The crude is a more valuable thing in a strategic storage situation.

Mr. BURR. I appreciate your honesty and sharing with us that DOE does not have all the answers and there is no crystal ball, because I was beginning to be a little bit concerned that maybe you had an advantage on us as far as it related to the future.

Mr. Chairman, I have abused my time, but since I went ahead and missed the vote, I will make sure that in my letter to the Secretary that I ask for a written permission slip. I thank you for your time and I yield back, Mr. Chairman.

Mr. SCHAEFER. The Chair does not expect any member to have to miss any of these votes that are coming up even though that was just a journal. Indeed, we will have another round of questions.

The gentleman from Oklahoma, Mr. Coburn.

Mr. COBURN. Thank you.

The Chairman asked you about the impact of selling 100,000 barrels a day, if that would have a small impact. For the marginal well producers of Oklahoma, Texas, Colorado, New Mexico and that region where we are shutting in a multiple number of wells every day that have oil in them, what is a small impact?

Mr. SIMPSON. The estimates I've seen are 30 cents a barrel.

Mr. COBURN. How does that impact in terms of lost reserves that we have now, in terms of shutting in marginal wells?

Mr. SIMPSON. There is no question that if you dropped it even 30 cents a barrel over a sustained period of time that it could have an impact because the economics of the marginal wells, as we all know, are so thin. First, we are trying to minimize it by stretching it out over as much as we can. That gives us a much, much lower volume on a daily basis.

That is one of the reasons also that we oppose the sale of additional oil out of the Reserve. The bigger the number and the higher the volume you are selling on a daily basis into a soft oil market

the greater the price impact, which is completely contrary to the entire purpose of the Strategic Petroleum Reserve. The marginal wells, the reserves behind those wells are as important a part of our Strategic Petroleum Reserve as is the oil in the ground.

Some people have suggested that to extend the time that we would send that oil to market that we might move it all to Big Hill and then sell it over another period of time and pull it back out. We have looked at the math on that from the taxpayer point of view. From a taxpayer point of view it does not make sense for us to move the oil once, pay the transportation fees, and then bring it back out and pay additional transportation fees.

Mr. COBURN. What you are telling me is you have looked at the options and you know what the impact is going to be in terms of the loss of known reserves today by sale and distribution of this 7 million barrels over 2 years?

Mr. SIMPSON. No, sir.

Mr. COBURN. Why not? I sit here and look at this graph put out by your department. In a low price case, in the year 2010, 70 percent of our oil is going to come from overseas, and we are going to be making decisions today that are going to cause us to shut in permanently marginal wells as well as sell something?

It just seems to me we need to look a little bigger at the policy. You are telling me we have a small impact. When I go to Oklahoma and I tell the marginal producers that they are going to face 2 years of another 30 cents lower a barrel and half of them aren't going to be there 2 years from now, that's no small impact.

The other thing that is not a small impact is we are losing our infrastructure. You all know that. We are losing our ability to explore and develop oil in this country. Now we are losing the training mechanism in terms of where the people are coming from that are obtaining those skills. It just seems to me that before this is done that we ought to look at what the overall impact is.

What it points to, I guess, is that we don't have an energy policy in this country. Would you agree with that?

Mr. SIMPSON. No, I would not agree with that at all.

Mr. COBURN. If we do have an energy policy, then we ought to know what our policy's impact is going to be in terms of reserves.

Mr. SIMPSON. One of the parts of our policy is that we need to continue to lower the cost of production. If we don't sell this oil and get the $100 million, we will have to sacrifice very significant elements of the technology research and development that we are working in cooperation with industry to be able to find, explore for and prolong the life of those marginal wells. It's not a simple one-for-one tradeoff, in our view.

Mr. COBURN. I agree with that. I guess the question I am asking is, it doesn't seem to me that you have really looked at factoring in whether or not you transport it and then resell it over a prolonged period of time, whether you have really looked at what the cost is to us in terms of re-exploration for additional reserves that are going to be offset by the losses. I think that's the thing that concerns me.

The other thing is I really believe our energy policy in this country is cheap imported foreign oil. That's what I think our energy policy is. All you have to do is look at the trend line and you look

at our tax policies for energy investment and exploration. That's what it is. We may not want to call it that, but that's what it is, and you pretty well can't deny it when you look at the graph put out by your department.

Let me ask you another question. You talk about life prolongation or life extension of this reserve. What's the work that has to be done?

Mr. SIMPSON. You have to replace valves, replace pipe in some cases. One of the disadvantages of having a reserve is that you don't use it; it sits in place and tends to corrode and lose its structural integrity more quickly than it would if you were going to use it on a regular basis.

Also, the Reserve is 20 years old. So we are reaching the end of useful life of the facility by the market terms, by a private operator that would do something.

So we have had to replace much of the infrastructure that allows us to bring oil in to fill and to move oil out in the time of an emergency so that we can extend the life by another 25 years.

Mr. COBURN. So it's really access capability that we are talking about.

Mr. SIMPSON. Right.

Mr. COBURN. Let me go back to something Congressman Burr was following on. If you had to start drawing down this Reserve, how many days before the market is going to be affected? If we had a cutoff of foreign oil, how many days before we would see a market effect based on supply and demand? Not speculation, but based on supply and demand. How many days before the market would be affected if you started pumping out at 3.9 million barrels a day? Assuming that we are at 51 percent imported oil today, how many days?

Mr. SIMPSON. If we had a complete shutoff?

Mr. COBURN. Yes, if you had a complete shutoff.

Mr. SIMPSON. I think the market would react immediately.

Mr. COBURN. How about in terms of distribution and shortage? I know the price would react, but what about in terms of impacted availability of petroleum product?

Mr. SIMPSON. In theory we could maintain the distribution almost 175 days. In reality it wouldn't work, because you would begin to see disruptions even within 2 weeks, because the oil is moving in various pipelines, ships, coming out of tanks, as you are well aware. So it will not necessarily be distributed exactly where it needs to be. So you would see shortages come fairly quickly.

An example of this was the fire in the Houston ship channel last year where the big pipelines ruptured. There was real concern that one could begin to see a supply disruption within a couple of weeks.

While the Reserve will mitigate that substantially and extend out the impact, just because markets are not absolutely perfect and distribution systems are not absolutely perfect, even if we went full bore pouring every barrel of oil out that we could, there would be some disruption fairly soon.

Mr. COBURN. If we have leased space or we lease part of our Reserve, who gets first call on that? Who gets priority?

Mr. SIMPSON. I think we have to put ourselves in a position where we do. The people who would store the oil in our Reserve,

the way that the action is likely to occur is not by direct withdrawal from our Strategic Petroleum Reserve. The chances are that these countries are going to be a third to fourth to half way around the world, and there will be oil on the seas closer to them than in our Strategic Petroleum Reserve. So we would likely simply swap it, and that oil would move into our markets here in the country.

The advantage of that and the advantage of leasing is really one of the most attractive things to us, besides the fact that if we could lease 80 million barrels and get $2 per barrel for it, which is not out of the question, then we would have an additional substantial revenue source.

The real advantage if we could lease this is we would actually increase the amount of oil in storage throughout the world at a relatively low cost for the other countries. It is quite probable that the swapping mechanisms are how that would move, so we would have an additional 80 million barrels of reserves in this country.

Mr. COBURN. Did I hear you say earlier that the cost to extend the life of the Reserve is about $200 million overall?

Mr. SIMPSON. No. The annual operation and maintenance is about $200 million a year.

Mr. COBURN. How much money are we going to be spending on this retrofitting?

Mr. SIMPSON. It's $350 million over 7 years, and we started that work in 1993.

Mr. COBURN. Let me yield back, Mr. Chairman.

Mr. SCHAEFER. The Chair thanks the gentleman.

I would like to ask a couple questions dealing with the International Energy Agency. We all know that during the Gulf War we drew down the SPR in order to prevent a spike in the prices. As I understand it, the U.S. requested the IEA to perform a limited drawdown on member reserves to stabilize these prices and IEA refused. Do you know the reasons why they refused to do this?

Mr. SIMPSON. Staff that were involved at the time tells me that they did not refuse. They agreed to engage in a cooperative effort to draw down and use demand restraint.

Mr. SCHAEFER. But they didn't. Of course they don't have the same thing that we have with the SPR.

Mr. SIMPSON. In some cases, but not in all. There is a series of combinations.

Mr. SCHAEFER. I think our annual membership cost in the IEA is like $5 million on an annual basis. That's about a fourth of their entire budget. What other countries are involved in IEA?

Mr. SIMPSON. There are 23 member countries. Most of them are the ones that one might expect: Australia, Austria, Belgium, Canada, Denmark, Finland, France.

Mr. SCHAEFER. You don't have to go through them all. Is Venezuela part of that?

Mr. SIMPSON. No. Venezuela is not a part of it, but even if they were they would not be required to have a reserve, just like the United Kingdom is not and Canada is not, because they are net exporters.

Mr. SCHAEFER. Is there some reason why Venezuela wouldn't be?

Mr. SIMPSON. Venezuela is in OPEC.

Mr. SCHAEFER. Yes, I know.

Mr. SIMPSON. I don't know why they would not. I have not researched that question. It's a very interesting question.

Mr. SCHAEFER. About 17 percent of our oil comes from Venezuela.

Mr. SIMPSON. Recently Venezuela became our largest exporter to this country.

Mr. SCHAEFER. I'm going to have to look into that a little more. I do know that they are members of OPEC. Of course they nationalized back in the middle 1970's. However, now in the Orinoco Valley they are starting to open more to foreign companies, particularly American companies.

Would the gentleman from Connecticut have any questions?

Mr. FRANKS. Yes, Mr. Chairman. Thank you.

How does the mere fact that the Strategic Petroleum Reserve exists impact oil markets?

Mr. SIMPSON. The mere fact that it exists over the long haul probably has no real effect. Where you see its effect is at any point that you get a disturbance in the market, and then it tends to hold prices closer to where they are than to go up.

Mr. FRANKS. In the event that the IEA sharing system is triggered, how much U.S. oil imports would be diverted to other countries?

Mr. SIMPSON. In an important improvement in the process that was ratified in the IEA in February of this year, it would take an extreme situation that would cause that to occur, if it would occur. When these IEA agreements were put in place originally, the plan was to do oil sharing. Based on the volumes, you would move it around and allocate it.

The experience that we have had with the Reserve and the experience that we had in the Gulf War, as we sold oil, helped to show that the market was better able to allocate the petroleum than some sharing plan. So we would sell the oil out to the highest bidder. In February the IEA agreed that use of stockdraw and other such measures, would be the best way to do it.

We propose in the legislation to maintain the sharing plan authority. That is important to the other member countries of the IEA and it's important as a part of the IEA for us to demonstrate our commitment to their concerns as well, but we have managed to shift the way it would work.

Mr. FRANKS. Thank you, Mr. Chairman. I have no further questions.

Mr. SCHAEFER. The gentleman from Oklahoma.

Mr. COBURN. I just wanted to go back to the Strategic Petroleum Reserve for a minute. With some of the forward planning that you all are thinking about in terms of swapping and leasing, why would it not be a good idea to privatize this?

You have referenced the market so many times. Why not let this be done, privatize it? Let the Department of Energy have oversight on what they are doing, but put it into private hand where we in fact could have them in the market and let the market really drive a lot of it with the requirement that here's the minimum requirements that have to be maintained.

Mr. SIMPSON. One of the problems is the structural integrity of the system. If you can only deplete it and refill it five times, it's

difficult to be a true market player on a regular basis. We have looked at ideas and will continue to look at ideas of how one could privatize it in an effective way.

Mr. COBURN. Come back and explain a little bit to me. I understand that we can only empty it and refill it five times to maintain the structural integrity and make it totally what it is today. That's five times over what period of years?

Mr. SIMPSON. It's just five times.

Mr. COBURN. How many times have we done that?

Mr. SIMPSON. We haven't.

Mr. COBURN. Right. I'm not sure that that right now is as much a concern as trying to do it in maybe a more efficient or marketing oriented way that might be somewhat improved. If in fact that wasn't a factor, what would inhibit us from privatizing the Strategic Petroleum Reserve?

Mr. SIMPSON. I think one of the calculations you would have to make is whether you want a private entity competing with marginal wells in an open market. The natural inclination of a private company operating the Strategic Petroleum Reserve would be to sell as much of it as they could because the carrying costs would be significant. While you would have a lot of collateral, just to meet your loan obligations would require you to sell oil, and selling out of the Reserve into a soft market is a problem.

Mr. COBURN. Thank you. I yield.

Mr. SCHAEFER. I would like to ask a couple of questions on weatherization and the State Energy Conservation program. In the past, as we all know, there has been some criticism of the formula for distribution of weatherization grants to the States. How does the weatherization rule issued by DOE in 1993 address these particular concerns that we have had on the formula?

Mr. SIMPSON. It has addressed it and it has allocated more of the weatherization funds to the warm weather States. I would be pleased to provide the specifics of the distribution to the committee.

I would make the observation that the reduction in the amount of money available for weatherization is a pro-rata distribution across all of the recipients. Even though the formula was going to redistribute more of some of the funds to the warmer weather States than had previously been done, the fact that we expect the appropriation to cut the weatherization program in half will diminish by half the anticipated increase in funds that they thought they were going to get under this program.

Mr. SCHAEFER. What was the reason of going to more of the warm weather States with this when most of this problem is in the colder areas, particularly among the lower income and the seniors? Is this a political reason?

Mr. SIMPSON. No. This has been a longstanding debate, a longstanding problem between and among States. If you look at last summer and how hot it got and the number of people that died in Chicago, low income people in buildings without air conditioning, it is a problem in the heat as it is a problem in the cold. It is more apparent, it seems to people.

Mr. SCHAEFER. I wouldn't classify Chicago as a warm weather area.

Mr. SIMPSON. No, but it's indicative of the problem.

Mr. SCHAEFER. It did get hot there this year. I know that.

On the conservation program, the appropriation level for the State Energy Conservation program has been about in the $25 million range. But if you look back at 1992 and 1993, DOE distributed only $11.4 million and $10.6 million. Is the rest of this administrative costs if it's $25 million approximate budget and not even half of that is distributed?

Mr. SIMPSON. There has been a problem with administrative costs. We have taken some steps to address that. The specific numbers that you are describing, I would like to answer in writing.

Mr. SCHAEFER. Without objection.

[Information to be furnished follows:]

STATE ENERGY PROGRAM AND ADMINISTRATIVE COSTS

The administrative costs for the State Energy Conservation Program (SECP) for FY 1992 through FY 1995 have been below 10%. All of the funds appropriated under the grant line item are distributed to the States. The funding levels referred to by the Chairman reflect only a portion of the accounts supported by grant programs.

Funding for the State Energy Conservation Program since FY 1992 reflects changes made as a result of the Energy Policy Act and proposals in the FY 1996 appropriation language. In FY 1992 the Energy Extension Service (EES) budget was $4,757,000 and the SECP budget was $11,437,000 for a total of $16,194,000, and in FY 1993 the EES budget was $4,957,000 and the SECP budget was $10,524,000 for a total of $15,481,000. In FY 1994 Congress abolished the Energy Extension Service as a separate entity and broadened the State Energy Conservation Program to include EES Activities. The FY 1994 and FY 1995 State Energy Conservation Program budgets were $18,310,000 and $22,493,000.

In FY 1996 the Congress has indicated its support of consolidating the State Energy Conservation Program and the Institutional Conservation Program (ICP). In FY 1995 the ICP was funded at $29,004,000. The FY 1996 proposed budget for the consolidated grant programs of SECP, ICP and the former EES program, was $24,500,000, which represents about a 50% reduction in the funds available to the states for these activities. All of these funds are provided to the States through formula shares. Funding to administer these programs are included in the overall Office of Technical and Financial Assistance (OTFA) Program Direction account.

In addition, between the grant consolidation and streamlining efforts, we anticipate that program direction accounts will be reduced even further in the future. The Office of Energy Efficiency and Renewable Energy is implementing plans to reduce its field office structure by 40% by March 31, 1996. This will include a reduction of approximately 75 FTE associated with grant administration and the closure of four regional support offices.

The table below provides totals for FY 1992 to FY 1996.

OTFA Program Direction and Federal and PVE Funds for Programs

[dollars in thousands]

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996 Request
Program Direction	23,944	25,799	28,129	27,678	22,949
PVE—Weatherization Assistance Program	72,908	40,440	33,457	14,970	**
Weatherization Assistance Program	194,000	185,400	206,800	214,871	229,046
PVE—State Energy Conservation and Institutional Conservation Programs	123,749	214,612	130,780	66,296	**
Institutional Conservation Program	30,200	28,915	28,915	29,004	*
State Energy Conservation Program (includes EES)	16,194	15,481	18,310	22,493	51,500
Other OTFA Program	17,016	17,817	40,273	43,671	68,231
Total	454,067	502,665	458,535	368,834	348,777
Program Direction as % of Total	5.27	5.13	6.13	7.50	6.15

* No information is currently available on Governor's Designations

** Assumes merger of Institutional Conservation Program and State Energy Conservation Programs.

Mr. SIMPSON. In our realignment process we are closing half of the offices that we have had to administer these programs, reducing the number of personnel and consolidating them into half the number in order to lower these costs.

Mr. SCHAEFER. I'm glad that is being addressed. It didn't ring true to me.

Let me get on to CORECT, the Committee on Renewable Energy Commerce and Trade. It was established in 1984, as I understand it, to boost the exports of renewable energy technology, and I'm certainly a big supporter of renewables. Have the U.S. exports of this renewable energy technology increased since 1984? Or is it about the same?

Mr. SIMPSON. They have increased and the opportunities for them to increase are substantial. One example is in India. There is a wind or photovoltaics opportunity with about $400 million worth of work there. If you look globally, there is at least $10 billion of identifiable market opportunity for renewable energy.

One of the problems and one of the reasons we want to keep this authority is that a lot of our renewable energy companies are newer companies, smaller; they do not have the capital base to explore for these opportunities around the world. So where we have really focused our efforts is in trying to gather the information about these market opportunities and making it available to the U.S. companies so they can get out and compete in that marketplace.

Mr. SCHAEFER. DOE is doing a substantial amount of cooperation with China and Upper Mongolia, as I understand it. Is that renewable trade, or part of it, or is that all oil drilling?

Mr. SIMPSON. I would have to get back to you on that one.

Does anybody know the answer to that one?

You've stumped us, Mr. Chairman. We'll have to answer that one in writing.

[The information follows:]

Concerning renewable energy activities in China, DOE and the China Ministry of Agriculture have signed a five-year agreement on renewable energy cooperation. The agreement is a follow-up to the Presidential Mission on Sustainable Energy and Trade to China led by Secretary Hazel O'Leary in February. The renewable energy projects covered by this agreement will assist China in meeting its goal of providing electricity to 95 percent of the rural population by the year 2000. Gansu Province is the starting point for activities under this agreement. The U.S. and Chinese governments will share equally the costs of activities, equipment, transportation and installation up to $10 million and up to eighty percent of the U.S. funds will be used to purchase materials and equipment from U.S. industry.

Other renewable energy activities are under discussion with the Chinese government ranging from grid connected applications of renewable energy technologies to development of a modern bioenergy program. The scope and extent of the activities to be undertaken as a result of these discussions will be subject to the availability of resources.

Mr. SCHAEFER. The gentleman from Oklahoma.

Mr. COBURN. I'm really concerned. You say you've had some administrative problems with the State Energy Conservation program. Do you all have an in-house analysis of what is going on and why it costs 60 percent to administer that program?

Mr. SIMPSON. We can show how much money we have been spending on those, and part of it has been involved with just land-

lord expenses of offices, personnel, and payment of salaries, which is why we are reducing these operations significantly.

Mr. COBURN. Can you share that with us?

[The response appears on p. 28.]

Mr. SIMPSON. Yes.

Mr. COBURN. Would you mind sending that to my office?

Mr. SIMPSON. Not at all.

Mr. COBURN. Thank you, Mr. Chairman.

Mr. SCHAEFER. Does the gentleman from Connecticut have any questions?

Mr. FRANKS. No, Mr. Chairman.

Mr. SCHAEFER. The other agency is the Committee on Energy Efficiency Commerce and Trade. It seems to me we could cut that down a little bit.

Your testimony states that the potential worldwide energy efficiency market is estimated at about $84 billion a year. What is the level of U.S. exports here and what market share have U.S. firms captured to this date?

Mr. SIMPSON. Again, I would like to get those specifics for you. I think it's important that we document that on the record. The potential is there. We are actually capturing a lot of the market, but the challenge is to keep the U.S. companies competitive in these growing markets against some other companies from other countries.

Mr. SCHAEFER. Any of those figures you could get the committee would be very helpful for now and in the future.

[The information follows:]

The current level of energy efficiency exports is not readily available due to the many diverse U.S. industries that contribute to energy efficiency exports. In addition the Department of Commerce does not have a Standard Industrial Classification (SIC) code for the energy efficiency industry making it difficult to provide estimates on market share captured to date.

The $84 billion a year estimate is based upon a study prepared by the International Institute for Energy Conservation (IIEC) entitled "Seizing the Moment: Global Opportunities for the U.S. Energy Efficiency Industry." A copy of the report is attached for your information. The report indicates that a potential world market of $84 billion per year exists for energy efficiency products and services. A potentially greater market exists for energy efficiency based upon a World Bank projection of $1 trillion in capital requirements for raw generating capacity for this decade alone, under a business as usual scenario, however, the report indicates that only $230 billion is readily available from multilateral funding sources for new generating capacity. Energy efficiency investments can fill the void, provide environmental benefits and "free-up" resources for sustainable economic development by avoiding the need to invest in large capital-intensive power projects.

The IIEC report provides an overview of the U.S. energy efficiency industry. The linking characteristic, for this industry, is that each provides services with less energy input than alternative means of providing comparable services. The industry includes allied energy services-oriented companies providing engineering, project management, finance, and software-development expertise for delivering savings to energy users. For example, the manufacturing arm of the efficiency industry includes manufacturers of advanced, energy-efficient lines of products traditionally associated with other established industries, including motors, heating, ventilating and air conditioning equipment, lighting, appliances, controls, windows, insulation and other building products, and equipment for efficient industrial processes.

Mr. SIMPSON. Could I return 1 second here?

Mr. SCHAEFER. Sure.

Mr. SIMPSON. The folks from the energy efficiency office have pointed out to me that the overall program direction costs for these State energy conservation programs is only 10 percent, and we are

streamlining and we are distributing all the money. So there is some confusion in these numbers that I would like to get to the bottom of and provide you all with those.

Mr. COBURN. That's fair.

Mr. SCHAEFER. Please do, yes. The number I've got here is approximately $25 million; in 1992 distribution was $11.4 million; in 1993 it was $10.6 million.

Mr. SIMPSON. I will look into this myself personally.

Mr. SCHAEFER. It's far from the 10 percent.

Mr. SIMPSON. Right.

Mr. SCHAEFER. Any other questions, Mr. Coburn?

Mr. COBURN. I have one last question. We hear a lot about corporate welfare as we are trying to make things right in terms of what is the appropriate thing to encourage business. The Department of Energy's involvement in terms of marketing and promoting renewable energy technology and doing that in association with business, would you characterize that as corporate welfare?

Mr. SIMPSON. No, I wouldn't.

Mr. COBURN. Can you tell me why?

Mr. SIMPSON. If we are looking internationally, there is an element of competition in international markets which is identifiable and difficult to quantify, and that is the element of support that the companies from individual countries get from their own government.

You can also look at the amount of money that is being spent on research and development by other countries and you can look at the amount of money by governments and you can look at the amount of money that is being spent on research and development by our government as a percentage of GDP or as a percentage of market share, or however you want to look at it. In recent years what we are finding is that other countries are outspending us.

Our companies have to compete in the same marketplaces that those companies have to compete in. So a choice has to be made. If they are going to receive assistance from their governments and they get the same price for their product as we do, then our companies have to be able to improve through efficiency or new technology in order to compete, and yet they can't charge any more money for their product.

It seems to us a legitimate role of government to balance the actions of other government in the marketplace.

Mr. SCHAEFER. If the gentleman would yield, I would just comment that there is only so much you can do to be more efficient. A lot of this, and you alluded to this, is less regulation not only by DOE, but by EPA and others. You can just do so much with what you have.

Mr. COBURN. We also can have tax policies that stimulate investment in research much more so than what we do at this time in the country.

Mr. SCHAEFER. I guess there are no other questions, Mr. Simpson. We appreciate very much your being here. I would relay to whomever necessary our opening comments, and I will leave the record open for any written questions that we might want to submit to you. Thank you very much.

Mr. SIMPSON. Thank you, Mr. Chairman.

Mr. SCHAEFER. The committee wants to call up the next two gentlemen on our second panel, Mr. Scott Sklar, executive director of Solar Energy Industries Association, and Mr. John Nunley, Wyoming Energy and Conservation Office, representing the National Association of State Energy Officials.

Mr. Nunley, we will start with you, sir. I will say to both the gentleman that without objection your entire written statement will be made part of the record.

STATEMENT OF JOHN NUNLEY, III, DIRECTOR, WYOMING ENERGY & CONSERVATION OFFICE, ON BEHALF OF THE NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS; AND SCOTT SKLAR, EXECUTIVE DIRECTOR, SOLAR ENERGY INDUSTRIES ASSOCIATION

Mr. NUNLEY. Mr. Chairman, thank you for the opportunity to provide testimony on the reauthorization of the Energy Policy and Conservation Act.

I do want to point out that on the witness list I am listed as also representing Duncan, Weinberg, Miller & Pembroke. I haven't received a penny from them yet. Until the check is in the mail, I won't be doing anything for them today.

Any salary increase would be appreciated.

My name is John Nunley and I'm the director of the Wyoming Energy & Conservation Office. I am also a member of the board of directors of the National Association of State Energy Officials, more commonly known as NASEO. As a board member, I represent the States of Colorado, Montana, South Dakota, North Dakota, Utah, and Wyoming.

I'm here today on behalf of NASEO. NASEO represents the States, territories and the District of Columbia and strongly supports the reauthorization of the Energy Policy and Conservation Act, including the State Energy Conservation program, more commonly known as SECP, the Institutional Conservation program, ICP, and the Strategic Petroleum Reserve, SPR.

In addition, NASEO supports the reauthorization of the Weatherization Assistance program, the Committee on Renewable Energy Commerce and Trade and the Committee on Energy Efficiency Commerce and Trade.

As you already have before you my written testimony, I don't wish to take up any valuable time here in summarizing that. Instead, I would just like to give some of the examples of the valuable work that is being accomplished under SECP in the field from the perspectives of a small State. Not small in size, I would point out, but just small in population.

Please remember in your deliberations that economies of scale do not exist just because a State has a small population. Equipment and labor to provide a demonstration are essentially the same in any State. It doesn't matter what the location is. There is a bottom line dollar that you have to start with.

There are four different things that I wanted to mention that we are doing in Wyoming that kind of highlight the SECP program. In Wyoming we have worked hard through SECP with local and county governments to help reduce their energy costs.

Working closely with the Wyoming Association of Municipalities and the Wyoming Association of County Commissioners, we established in 1991 a revolving loan fund to be used to install energy efficient equipment and technology in public buildings. We set aside $1 million of some of our DOE funds and the majority of it in petroleum violation escrow account funds dedicated to this measure, and we could have easily tripled this value had we had the excess cash on hand. A great demand in this area.

The result is to date 17 communities and seven counties in our State have projects on line that have used an average of $45,000 per project, and projections are at the end of 10 years or less we will have saved 2.7 trillion Btu's. This particular program in our State has a 10-year life. At the end of that 10 year life we will review the program. If there is still a necessity for it and if the program is still successful, then we will renew it for an additional 10 years. My feeling is this program is going to go well into the 21st Century based on the early successes we've had so far.

Another area that we have investigated and chose to do efficiency studies in is in the area of lighting. We want to demonstrate the benefits that can be obtained when using energy efficient lighting, benefits such as increased profits, reduced operating costs, longer operating life, improving lighting levels, enhanced employee morale, and less environmental degradation.

Under an SECP measure we identified five different locations in the State of Wyoming to proceed with a demonstration. These locations included a warehouse, our Wyoming Public Service Commission facilities, an older State of Wyoming office building, a private office building that primarily houses attorneys, and an airport passenger terminal.

We dedicated $85,000 to this particular project. The results were nothing less than phenomenal. We had some paybacks in periods of less than a year and a half. The entire project will pay back in less than 7 years with tremendous reductions in greenhouse gas emissions and energy usage.

Employee surveys indicated a strong liking for the programs. The only complaint that we received was that lighting levels were too high, and in fact we found when we did our preliminary studies prior to changing and retrofitting our lights some areas of our State office buildings had not enough light as recognized today for minimum lighting standards for a workplace.

We chose to use broad spectrum lamps in our retrofits, and the employees have enthusiastically favored these because they tended to give real life colors and tones to their skin as opposed to yellow. Consequently, we are finding most employees are much happier coming to work than they were prior to the demonstration.

The third one I wanted to mention is we have always been interested in efficiencies of electric motors in Wyoming. As you well know, electric motors consume about 60 percent of the electric generation in this country.

All manufacturers of electric motors put some sort of a stamp on their motors giving them an energy efficiency rating. This is somewhat misleading, though, in the fact that they may have tested a lot of 1,000 motors and found the very best one to put their efficiency rating stamp on with. Or there are nearly six different

methods of testing motors that give you an efficiency rating. If one doesn't give you the rating you wish, you might use another method. There is no agreed upon method. You will use the one that gives you the best efficiency for your motor and your best opportunity then to sell it.

We established a National Motor Testing Lab 3 years ago. We downgraded from that name to the Wyoming Motor Testing Lab at DOE's recommendation because they thought it sounded a little pompous to start with and they had some money involved in it. I'm proud to say that that motor lab has now gained national prominence. The university receives motors from all over the country for testing from different manufacturers. It also receives blind motor tests where they have removed the name plate information. They tell you only what the hookup is of the motor, the horsepower it's supposed to be.

The university then tests the motor, delivers it to the manufacturer, Underwriter Laboratories, or whoever requested the test the final results of the efficiency of the motor.

Due to the testing provided by this motor lab, many Wyoming companies have more efficient operations than they had prior to. Often there are unexpected outcomes from SECP measures, and this is one of those.

The Federal Government has benefited directly from the establishment of this lab under SECP. Simply put, electric motors on pump jacks at the Naval Petroleum Reserve 1 and Naval Petroleum Reserve 3 were investigated. Many of them were found to be undersized or oversized. There is a common misconception that if a five horsepower motor will do the job, a ten horsepower motor will be more efficient, a better choice, and that's not true. Depending on where it falls on the efficiency curve, it may actually use more energy than the smaller motor.

The university found in their studies at NPR–1, for instance, that a number of the motors are actually improved by 28.6 percent on their efficiency by changing out to one that was closer to the load that was required, and an overall average savings of 14.6 percent was achieved.

If we look at the Nation's 453,000 stripper wells and were to investigate only 50 percent of these and assume the same efficiency average of 14.6 percent, the domestic petroleum industry could be saved $77 million annually, and many of the wells that we heard discussed early by the gentleman from Oklahoma that are being capped today may be able to be saved and not abandoned prematurely.

There is a further positive outgrowth of this particular one small SECP measure. The State of Wyoming collaborated with the Department of Energy, both the Denver support office and the DOE personnel at NPR–1, and were instrumental in starting the Rocky Mountain Oil Fuel Testing Center, which is located at NPR–3 Salt Creek Dome in Wyoming.

This particular center is dedicated to providing access to American scientists, American engineers to wells. They can have their choice of well. They can have a good well; they can have a bad well; they can have anything in between to test new ideas, new tech-

nologies, new methods of improving the pumping or the delivery of oil to the barrel head, to the pipeline head, at reduced costs.

The advantage of this particular center is the fact that if I work for Amoco or I work for Texaco and I'm in their research department, quite often if I need a working well that is producing and making money, I can't get my hands on one. They are in business to sell oil. They don't want to take a good well off line. NPR–3, on the other hand, while they are under a mandate to make a profit, can occasionally free up one of their good wells if that's what is required by the scientists.

We are kind of proud to say that our success in reducing red tape and bureaucracy, which enables scientists to proceed with the projects in a timely fashion, is something that is unique right now in government.

The last example I would like to give is in Lusk, Wyoming. Wyoming has always strived to stay somewhat at the forefront of technology, and a prime example is the State Energy Office's involvement with the town officials in Lusk, Wyoming.

Lusk is a town of 1,500 hardy individuals located on the eastern edge of Wyoming. The town is a member with several other local governments in the Wyoming Municipal Power Association. They have long wanted the ability to shed a non-priority load during peak demand times. They own their own transformer, and occasionally that transformer is well overloaded on the edge of town.

They approached the SEO several years ago to see if we would like to participate in the demonstration of a fiberoptic system that could be used to shed load as required to meet their maximum demand level that they would set. We chose to participate in that as did several other partners with the city of Lusk.

The equipment was finally installed and commissioned last month and initially gives the city the shed control of municipal equipment. Long-range plans include the opportunity to shed privately owned equipment such as TVs if the need ever arises. This one small SECP demonstration in energy gave the city an additional incentive, and that is they have the ability now to generate revenue. They can sell capacity on their fiberoptic cables. As a result, already they have improved phone service and cable TV.

Thanks directly to the efforts of the town's mayor and the fiberoptic cable, all residents have access to Internet if they want it, and all public school children in their town, from kindergarten through high school, have Internet access and Internet addresses in each of their classrooms. This small Wyoming community can now boast of being one of the most technologically advanced communities in the West if not in the Nation.

I could go on and on about the energy efficiency and renewable energy demonstrations we have provided, demonstrations involving alternate fuels, photovoltaics, wind generation, power plant waste heat, public energy efficiency, revolving loan programs. The list goes on. All these were and are being considered because of the availability and the flexibility that SECP provides.

I am pleased that SECP has been ahead of its time as the model of a type of Federal/State partnership that this Congress is attempting to support, a program which has provided increased flexibility to the States.

Over the years States have developed very cost-effective delivery mechanisms to ensure the deployment of new technologies. We work closely with the private sector. They are our customers.

Our Governors ask us very simple questions in this area: do these programs create jobs, retain jobs, and get new technologies into the marketplace? We have been able to answer these questions in the affirmative.

That concludes my formal remarks, and I would welcome any questions you might have.

[The prepared statement of John Nunley, III follows:]

PREPARED STATEMENT OF JOHN NUNLEY, III, DIRECTOR, WYOMING ENERGY & CONSERVATION OFFICE ON BEHALF OF THE NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS

Mr. Chairman, Members of the Subcommittee, I am pleased to have the opportunity to appear before you to testify on the reauthorization of the Energy Policy and Conservation Act ("EPCA"). The National Association of State Energy Officials ("NASEO") strongly supports reauthorization of EPCA, including the State Energy Conservation Program ("SECP") and the Strategic Petroleum Reserve ("SPR"). We understand the Committee also will be considering, and NASEO supports, the reauthorization of the Weatherization Assistance Program, the Committee on Renewable Energy Commerce and Trade ("CORECT") and the Committee on Energy Efficiency Commerce and Trade ("COEECT").

I am Director of the Wyoming Energy & Conservation Office and I serve on the Board of NASEO, an organization composed of energy offices in over 50 states, territories and the District of Columbia. Today, I am testifying on behalf of NASEO.

The primary purpose of my testimony is to discuss the important role that state energy programs, especially SECP, have played and will continue to play. In 1990, this Subcommittee, on a bi-partisan basis, strongly supported the reauthorization of these critical programs in the State Energy Efficiency Programs Improvement Act (P.L. 101-440). The hallmark of that legislation, and of the state energy programs we operate, is the fostering of innovative, flexible and diverse solutions to the energy challenges our country faces.

Initially, I want to thank Subcommittee Chairman Schaefer, full committee Chairman Bliley, and the members of this Committee for indicating strong support for full funding at FY'95 levels for SECP, the Institutional Conservation Program ("ICP" or "Schools and Hospitals") and the Weatherization Assistance Program. Unfortunately, the Interior Appropriations Subcommittee did not accept that advice and has proposed roughly fifty percent (50%) reductions in funding for FY'96.

State Energy Conservation Program

SECP was created in the 1970's primarily as an energy planning tool to promote state/federal cooperation and to permit flexible responses to be devised for the energy crises of that decade. As the program changed during the 1980's, it became the backbone for state energy programs and provided an important tool for leveraging other public and private resources to assist states in addressing both state and federal energy policy issues and utilizing energy as a tool for economic development. Under the present structure, enhanced through the 1990 statutory change, SECP encourages programs which meet local and regional needs and go well beyond energy efficiency programs to address all types of energy problems.

Under SECP, states have implemented projects in all sectors of the economy, including: 1) energy and economic development programs, especially in the industrial sector; 2) partnership programs such as home energy rating systems, 3) building code upgrades; 4) lighting projects; 5) promotion of mass transit, van pools, telecommuting; 6) energy efficient government procurement; 7) energy related public education; 8) energy efficient driver training; 9) performance contracting; 10) energy audit programs; 11) promotion of electricity restructuring initiatives; 12) promotion of alternative fuels and alternative fuels infrastructure programs; 13) agricultural energy efficiency programs; 14) promotion of renewable energy projects; 15) energy emergency planning; and, 16) promotion of environmentally sound fossil energy projects, along with a myriad of other types of activities.

Every state has successful program examples, but the real strength of SECP is its very high leverage. A recent DOE survey indicated that for every federal dollar invested in SECP, as much as $17-$25 of non-federal funds were expended to implement program initiatives. This small, but critical, federal investment through SECP

permits us to attract enormous non-federal resources, including utility and other private resources, and local and state funds. The catalyst provided by federal funds have enabled States to provide a relatively inexpensive deployment mechanism for the multi-billion dollar Federal research agenda that offers benefits to businesses, industries, our primary and secondary schools and universities. Most importantly, deployment fostered by State energy offices ensures that federal research pays dividends to the taxpayers who funded it. For example, everyone benefits when states help foster a market for more efficient residential construction and appliances, homebuilders, equipment manufacturers and installers get more business and the energy savings goes into the homeowners pocket.

During the 1980's, the primary source of funds for all types of state energy programs were oil overcharge refunds resulting from settlements of cases involving violations of oil price and allocation controls during the 1970's. These resources, totaling over $4 billion since 1981, have been virtually expended, resulting in a huge decline in funding available for highly effective and heavily demanded state energy programs.

On a bi-partisan basis, this Subcommittee provided all additional flexibility necessary to implement programs under SECP in the 1990 reauthorization. In fact, the additional activities authorized in the 1990 SECP reauthorization were included at least partially in contemplation of the conversion of this program to a more flexible block grant. Thus, all we recommend is a simple reauthorization of appropriations for at least a 5 year period. The FY'95 funding level is $22.54 million. The Administration requested $24.651 million in FY'96. The FY'93 authorized level was $45 million. We would urge the Congress to provide for language to permit such appropriations as necessary without a specific dollar figure in order to enhance flexibility as I describe later in my testimony.

SECP is also very important in the implementation of the Energy Policy Act of 1992 ("EPACT"). The states were asked to accelerate market development and deployment activities in the residential, industrial, transportation and utility sectors. We have been working to integrate these Congressionally authorized and funded activities within the existing SECP efforts. For example, in one program, eight states are developing innovative approaches to working with industrial customers to improve their process and facility efficiency while minimizing waste production. This *voluntary* national effort will integrate existing industrial programs operated at the state level and coordinated under the SECP umbrella.

The promotion of building code upgrades, training and enforcement (authorized under EPACT Section 101) has provided grants to thirty-four states to work with homebuilders, building inspectors, mortgage lenders and appraisers to increase the quality and affordability of our residential housing stock. Congress has recently provided funding for state efforts to expand home energy rating systems, a voluntary, market-based approach to providing consumers with the financial benefits of energy efficiency. These efforts are being integrated with a broad range of energy programs through SECP.

In the transportation arena, especially in promotion of alternative fuels and infrastructure development, Section 409 of EPACT provides for incentives to states to promote use of these vehicles, develop refueling infrastructure, and work with private and public fleet owners to promote a coordinated program. We are working closely with DOE in a number of states to implement the Clean Cities program to expand use of these fuels on a local and regional basis. Again, these programs are integrated by the energy offices through SECP and are being done on a *voluntary* basis. Unfortunately, the Appropriations Committee chose not to fund this program for FY'96.

We recognize that there has been a significant change in the philosophy of government here on Capitol Hill. I am pleased that SECP has been ahead of its time as a model of the type of federal/state partnership that this Congress is attempting to support—a program which has provided increased flexibility to States while achieving national objectives. I believe, as does my Governor, that the partnership between the federal government and the States in the area of energy policy is of prime importance to the competitiveness of our nation's economy and should be maintained. One key role of State programs is to eliminate the institutional, regulatory, and financial barriers which prevent cost-effective new energy technologies from being embraced fully in the marketplace.

Over the years, States have developed very cost-effective delivery mechanisms to ensure the deployment of new technologies. We work closely with the private sector; they are our customers. Our Governors ask us very simple questions in this area—do these program create jobs, retain jobs, and get new technologies into the marketplace. We have been able to answer these questions in the affirmative.

The following are good models of our activities:

Agricultural Energy Programs in Colorado

Colorado's Energy Conservation in Agriculture Program is an innovative effort which began with an investigation of the potential for energy savings in irrigation wells and pumps, and was expanded to included photovoltaic stock-watering systems, conservation tillage, tractor efficiency and energy efficiency for farms. In the first five years of the program, $1.35 million in federal and State funds, and private investment from farmers and ranchers have been spent on efficiency measures. *The savings total $11.56 million, or $9 saved for every $1 spent.*

Florida Energy Management Program

Florida's Energy Management Program was implemented in response to an Executive Order issued by Florida's Governor to reduce energy consumption by thirty percent (30%) in state facilities. The Florida Energy Office sponsored a series of pilot programs which resulted in the legislature authorizing a revolving fund to finance additional building retrofits.

The Florida State Hospital was one of the pilots which proved the concept behind the fund and recently was a recipient of a National Energy Award from the Department of Energy. During the period from June 1993 through December 1994, fuel oil consumption at the State Hospital was reduced by more than 1.2 million gallons, or twenty-seven percent (27%). Electricity consumption was reduced by approximately 3.5 million kilowatt-hours, or seven percent (7%). *These savings amounted to $661.700 over the first 18 months of the program and the savings are continuing. The total capital cost thus far amounts to a mere $20,000.* A portion of the savings is reinvested to continue the energy management program and to fund additional projects to further accelerate utility savings and the phaseout of mechanical deferred maintenance. The remaining savings are allocated to other needs within the hospital's operating budget.

Georgia Division of Energy Resources

In Georgia, Department of Energy funds have been used in a wide range of programs including alternative fuel vehicles, solid waste reduction and agricultural efficiency programs. The state has used energy funds to encourage local governments and authorities to convert to alternative fuel sources. *Investments of $400,000 in public funds have leveraged over $1.8 million used in converting approximately 350 public vehicles in cities such as Thomson and Toccoa.*

A solid waste reduction program has contributed to efforts among federal and state agencies to encourage local governments to reduce waste, recycle, and compost. In addition to education programs, funds have been used to establish 94 composting demonstration sites, including Gainesville and Athens.

Iowa Energy Bank

The Iowa Building Energy Management Program will install all cost-effective energy efficiency measures in public facilities by the turn of the century. This is a $300 million initiative with $50 million in annual savings projected. *The program has already completed $85 million in improvements (with an additional $60 million in progress), saving $14 million annually for the public entities with an investment of public funds of only $4 million.* The program includes engineering assistance, financing for improvements and ongoing monitoring of energy savings. Currently, savings exceed projections by 8% of estimates, meaning the program is achieving 108% of projected savings. The program requires no up-front capital expenditure from the institution and the financing is self-supporting from the energy savings. Utilities work with the program to offer additional incentives for improvements. The partnership with utilities and other stakeholders including the Iowa Hospital Association and the Iowa School Board Association is vital to the success of the program. This has permitted a broad range of public schools, hospitals and prisons to reduce avoidable energy costs, while investing more resources toward health care and education.

Ohio Department of Development Industrial Assistance Program

The Ohio Energy Office, working with AMPCO Metal Manufacturing Systems and DOE's NICE3 program developed an electric induction heating process for superheating reservoirs of molten alloys in a continually heated open holding furnace or tundish, replacing conventional fuel oil or gas heating methods. *The energy efficiency of the reservoirs increased by 98% and pollution from the process is substantially reduced. Waste reduction totaled 80%. The total cost of the project was $700,000 and was cost-shared. Operation and maintenance savings at the AMPCO facility are $1.2 million per year.* When this technology is adopted at foundries across the country, energy savings will total $5.8 million per year and pollution prevention of 147 million pounds per year will be achieved, while, allowing U.S. busi-

ness to more effectively compete in international markets and preserve jobs in this country.

These examples are reflective of the innovation, the skills at leveraging funding, and the ability to identify and involve critical program participants in all of our States. Overall, virtually all of the state energy offices operate programs targeted to increasing the economic competitiveness of industry, have programs targeted to the commercial sector, and work to ensure that homeowners have affordable housing. These state programs are developed in conjunction with market participants from all sectors of the economy and all sizes of business, especially small and medium-sized operations, to meet the needs of the States and national policy goals. The State's have a diversified portfolio of strategies designed to achieve national goals yet tailored to state needs.

Consolidated Programs

The concept of consolidating programs that affect the States has been discussed quite a bit of late. The federal/state partnership in energy policy is based fundamentally on the State Energy Conservation Program, which functions like a flexible block grant. In 1990, in the State Energy Efficiency Programs Improvement Act (P.L. 101-440), Congress worked with the States on a bi-partisan basis to dramatically increase flexibility, which also permitted the later elimination of the Energy Extension Service.

The House Budget Resolution incorporated language, negotiated directly with Chairman Kasich, which called for only a 10% reduction in funding over the a five year period and consolidated SECP and ICP to reduce administrative costs at the federal level and increase flexibility for Governors and States. The Appropriations Committees in both houses also acknowledged the flexibility of the SECP statute and chose to consolidate the Institutional Conservation Program into SECP. The FY'96 Interior Appropriations Bill also reduced funding for the combined programs by fifty percent (50%). Unfortunately, this significant funding reduction will slash the number of schools and hospitals which we can help save operating funds through energy efficiency retrofits.

Traditionally, ICP has been a straightforward program which provided federal matching grants to schools and hospitals to install energy efficiency improvements in these buildings. Nationally, tens of thousands of buildings have been improved through this program, providing tangible benefits to all taxpayers, students and patients receiving medical services. In schools and hospitals, when energy costs are reduced, more funds can go towards the primary purposes of education and health care. With government resources limited nationally, this is one program which has reached every congressional district.

ICP is another area where state energy offices spearheaded the application of innovative approaches to leveraging resources. In programs developed in Iowa and Oregon, and later formally authorized by Congress in the 1990 reauthorization, States were permitted to utilize federal ICP funds for energy audits and program marketing if alternative non-federal funding sources were made available. In the Iowa program highlighted above, the State arranged financing for any school system that wanted improvements by establishing an easy set of "fill-in-the blank" forms and conducting a competitive solicitation in the financial community to permit financing of projects with a pay-back of six years or less. This program is expanding to other states, as indicated in the Florida example. Consolidation of ICP into SECP will permit the expansion of these successful alternatives. Unfortunately, the transition to this new type of financing takes time, and we will be hard pressed to provide alternative funding for the schools and hospitals which were anticipating assistance this year. While we supported consolidation, the dramatic appropriations cut is counterproductive.

ICP is presently funded at a level of $29 million in FY'95. I will be working to replace that funding in 1996 in my state with alternative financing, but many facilities will simply not be served. The FY'93 authorized level for this program was $60 million. In 1980, the authorized level was $400 million.

The new Congress is opposed to unnecessary regulation, and wants to minimize federal control over States and localities. We agree. Yet, there is still a significant federal interest in energy because energy is fundamental to our industrial and information based economy. Our initiatives are cost-effective, voluntary, and involved businesses and homeowners. We are focussed on reducing transaction costs and bringing private financing to the table for these projects. The federal dollars are seed money, permitting the leveraging of funds from other sources.

It should be stressed that the state energy offices serve as the energy emergency preparedness and response arm of state governments. This function is made more critical in light of the predictions made by analysts such as ex-Secretary of Energy

Hodel that we face the potential of another serious disruption of Persian Gulf oil supplies. We are very much concerned as our dependence on oil imports exceed the 50% level, that we do not lose sight of the fragile nature of our energy situation. By focussing our efforts on the efficient energy use of our nations fossil and renewable resources and using the most cost-effective energy technologies we can enhance our economic competitiveness. For the average taxpayer, energy is the second highest cost associated with their home, after rent or the mortgage, so efficiency and low-cost resources are also critical to our citizens. Dependence on foreign energy sources has a serious impact on our trade deficit, another critical national issue.

State energy offices are generally not regulatory agencies. We work with the private sector through voluntary partnership programs which, in the aggregate, address the important federal and state interests detailed above. While a hospital administrator in Arizona that installs efficient lighting and an energy management system or a homeowner in Illinois that qualifies for an energy efficient mortgage may not realize that they are helping the nation meet economic goals, they do know their own energy bills are lower. When a factory owner in Alabama cogenerates electricity or a company in Montana builds a new plant to produce biodiesel, they may not realize they are reducing pollution and displacing foreign fuels, but they do know they have a new profit center in their operations. When we train a building manager in Nevada how to make his heating, ventilation and air conditioning (HVAC) system work at peak efficiency or help a university in Oregon run its steam plant and district heating system more efficiently, they know their facilities are working better, but may not recognize the societal interests which are being served.

State energy offices don't deal with mandates—we deal with possibilities and economic results: the possibilities of reducing costs, of developing new industries, of making homes more affordable, and of creating jobs. Because of a single *voluntary* program started in Alaska with SECP funding, the average new home in that State is 45% more energy efficient than it was just ten years ago. This program, home energy rating systems, has moved out to 15 other States and should double over the next five years. Our revolving loan funds and technical assistance programs have helped develop markets which didn't exist 15, 10 or even 5 years ago.

With your continued help and support we can sustain the progress which has been achieved through the federal/state partnership in the energy field. We recommend a straight forward reauthorization of appropriations for the SECP program for at least an additional five years.

Weatherization Assistance Program

The Weatherization Assistance Program (Weatherization) was started in 1976 in order to reduce energy costs for low-income families—particularly the elderly, persons with disabilities, and children—by improving the energy efficiency of their homes and promoting energy conservation.

Weatherization is administered by the 50 States and the District of Columbia. These offices work in partnership with over 1,100 community-based agencies. Following an audit of an eligible home, weatherization installers implement energy-saving measures such as caulking, weatherstripping, installing storm windows and attic insulation, and heating/cooling system improvements. A number of technical innovations in recent years, such as the use of blower doors and other sophisticated techniques, have made the services delivered more energy efficient and cost-effective, *i.e.,* more energy is saved per dollar spent.

According to DOE, the average investment for such improvements has been $1,650 per house. It is estimated that 27 million households are eligible for this assistance. However, due to continuously limited funds only about 120,000 low-income homes are weatherized this year. *This number will drop precipitously this coming year because of a forty-eight percent (48%) reduction in FY'96 appropriations.* This cut will be even more severe because approximately 10-15% of funds from the Low Income Home Energy Assistance Program ("LIHEAP", which helps the poor pay fuel bills) which have traditionally been transferred into Weatherization, will probably also dry up. In 1990, the Oak Ridge National Laboratory (ORNL) began a three year in-depth evaluation of the effectiveness of Weatherization. ORNL found that the program is effective at reducing energy costs for low-income households—the National Association of State Community Services Programs estimates that for every dollar invested by Congress in WAP, $1.72 is saved in energy costs. Weatherization also helps create jobs in low-income communities. ORNL estimates that 52 jobs are created for every million dollars of federal funds invested. The program also leverages funds from utilities in addition to LIHEAP. Unfortunately, utilities are also reducing funding for these programs because of competitive pressures caused by utility restructuring. It is clearly a "double-whammy".

Like the State Energy Conservation Program, Weatherization programs continue to provide long-term solutions to the problems of excessive energy bills. For every $1 spent on weatherization, between $2-3 is generated in the local community. In a single year, WAP creates 11,000 new jobs in direct weatherization services and an additional 6,000 are indirectly employed to supply insulation materials and audit equipment. The number of jobs continues to increase. Therefore, NASEO supports at least a five-year reauthorization of the Weatherization program.

Strategic Petroleum Reserve Reauthorization

NASEO has long-supported the Strategic Petroleum Reserve ("SPR") and a substantial fill-rate, taking into account difficult budget priorities. NASEO supported this Subcommittee's proposal during consideration of EPACT to apply a creative financing technique for SPR acquisition. The state energy officials have substantial responsibilities in the event of energy emergencies and have been working closely with DOE to ensure a coordinated response. For example, the states generally have "set-aside" authority (this permits States to shift up to 2% of petroleum supplies to high priority uses, such as police, fire departments and ambulances) under state law and we have testified previously before this Subcommittee on energy emergency issues. We continue to support the SPR and its early release in the event of emergencies. The SPR continues to be our major energy emergency response tool. Mr. Chairman, we must work more closely with our allies in developing a coordinated draw-down scenario so that our SPR does not become the sole World supplier in the event of an emergency.

NASEO also continues to support providing an appropriate mechanism to address the special problems of regions dependent upon imported petroleum products, *i.e.*, regional product reserves.

Committee on Renewable Energy, Commerce and Trade and Committee on Energy Efficiency, Commerce and Trade (CORECT and COEECT)

These programs represent innovative approaches to overseas promotion of trade of renewable energy and energy efficient technologies, services and products. We have worked closely with the renewable energy and energy efficiency industries in promoting these activities. From the state perspective, improving the export markets for new energy technologies *creates domestic jobs* through economic development. We must enhance the coordination of these programs and continue to work closely with industry to identify the special marketing needs for these technologies and programs. In fact, NASEO served as the first Chair and is one of the charter members of the Export Council for Energy Efficiency to promote COEECT activities. NASEO strongly supports reauthorization.

Conclusion

Federal appropriations for both SECP and ICP have dropped dramatically during the past decade, but the importance of these programs and their ability to leverage non-federal funds has increased. The programs which I have discussed today are delivery programs that provide both direct and indirect returns to the taxpayer, the only national programs at the Department of Energy which can make this statement. We urge your continued support for these important consolidated activities under SECP, as well as other provisions of EPCA dealing with SPR, CORECT and COEECT. We also support reauthorization of the Weatherization Assistance Program under the Energy Conservation and Policy Act (ECPA).

I am prepared to answer any questions you may have.

Mr. SCHAEFER. Thank you very much, Mr. Nunley.
Mr. Sklar.

STATEMENT OF SCOTT SKLAR

Mr. SKLAR. I am testifying here on behalf of both the Export Council for Renewable Energy, which is the consortium of trade associations representing the biomass, geothermal, hydropower, photovoltaics, solar thermal, wind and energy efficiency service companies, and I also run the Solar Energy Industries Association, which has 150 national members and 400 State members and is a member of ECRE, our association.

First, I would like to thank the Chairman for working with our industries and balancing government support of research and de-

velopment, equity and tax. If you deem to help us in appropriate Federal support for international activities, I'd never have to come up here and I could spend more time with my daughter. So let's hope we strike a home run.

The question I have for you is, why did Ronald Reagan sign the law that created CORECT? He did so for three reasons.

One, the market out there where we are selling renewable energy technology. We have 1.8 billion people without electricity. Renewable energy now is more cost-effective than extending the traditional utility grid. We have another billion people out there that don't have access to electricity more than 10 hours a day. So the market for renewables and ultimately efficiency is profound, and the U.S. leads technologically and manufacturing in all of that. So we've got a nice market out there.

The second issue we found in 1984 was that the Federal agencies were dropping the ball between themselves in promoting new technologies they weren't familiar with and that we were such small businesses. As a matter of fact, 85 percent of our industry is what would be construed as very small businesses.

What this legislation did and this program does is get the Federal agencies to sit around together about four times a year, coordinate their program so sales aren't dropped through the net, and to make sure that they coordinate on activities.

Then this little $2 million budget that we have gotten for some odd years has been to really just coordinate those activities and do some cost shared common things between our industries and those agencies.

The Energy Policy Act of 1992 extended CORECT in a bipartisan fashion. They created a sister group for energy efficiency, COEECT. Long acronyms. I didn't create them.

What we are asking is that your committee just extend authorizations even as "such sums as may be necessary." We consider these programs to be small and focused, so this is not creating baggage in the Federal budget. It will save lots of money and drive effectiveness of these agencies.

What are you going to get for the small investment?

One of the things that this program has been useful for is to get the multilateral banks that finance 85 percent of energy projects in these developing countries to develop bundling facilities so small-scale distributed technology can get funded through conventional loan processes.

You have to think of this as a change in business structure as we went from running lines for communication to cellular phones. This photovoltaic panel I brought that is flexible, we lead the world in this stuff. We have a billion people who can use it and get lighting for the first time, or refrigeration or communications for the first time in their lives.

It's a dramatic impact, but it is easier to do a $1 billion coal project than to do 10,000 little installations of photovoltaics right now that will have faster and more dramatic impact and in fact where the U.S. can sell all the technology. So the issue is it's creating some new ways to do business that will drive business.

We have seven new automated manufacturing plants being built in the U.S. now or about to be built because of this global market.

The Congressman who was here earlier asked what is the effect of CORECT. In 1984, when it was signed, 40 percent of our sales were export sales in photovoltaics. We are over 70 percent now.

Yes, it's true we've increased efficiency of technology and there has been new analysis in terms of markets, but just getting U.S. agencies and the multilateral banks cooperating with our industry creating common knowledge and coordination has had a big effect on this.

What else will you get for this money with these 1.8 billion people out there? We are active in China in trying to do small distributed power in Inner Mongolia: wind and solar, biomass projects from wood, coal, coal firing, and stand-alone biomass, small hydro and geothermal.

India now has the largest World Bank Loan for renewable energy. Three hundred and fifty million people with no electricity in India. In an interesting Washington Post story earlier this year, these 350 million people who don't have electricity do own appliances. Once a year they have these little fairs where they bring out their washing machines and TVs to show their neighbor, and they have no electricity. Wouldn't it be nice if U.S. technology helps them run their appliances? We have the potential to do so.

Mexico is our biggest market, 28 million without electricity. Brazil, over 60 million people. We are starting to see big markets.

Since we are fighting against subsidized loans of our competitors, the Germans, the Japanese, the Dutch, and we don't do that, the only other way to play ball is at least economies of scale in terms of marketing and facilitation so the few million dollars the government is putting in for CORECT and COEECT help coordinate that so at least we are better organized to deal with the subsidized financing since we have the better technology.

That's my pitch, and I think it's a real one on behalf of all these companies. I think you will see that the small benefits to this authorization are actually quite large. It is the tiniest budget at DOE, and I think it drives the biggest amount of activity in DOE.

My last comment is, you know, if SPR used photovoltaic cathodic protection rust prevention, it would probably have 10 more years on its life, and if you want to help us on that too, we would be happy to talk to the committee.

Thank you, Mr. Chairman.

[The prepared statement of Scott Sklar follows:]

PREPARED STATEMENT OF SCOTT SKLAR, EXECUTIVE DIRECTOR, SOLAR ENERGY INDUSTRIES ASSOCIATION

The U.S. Export Council for Renewable Energy (US/ECRE), founded in 1984, is the trade consortium of the U.S. renewable energy trade associations, comprising the biomass, geothermal, hydrogen, photovoltaics, solar thermal, wind and energy service companies. US/ECRE promoted the idea of a U.S. government interagency coordinating committee on renewable energy exports in 1984. SEIA is the national trade organization of the photovoltaics and solar thermal manufacturers and component suppliers (and a member association of US/ECRE). Currently, over 1.5 billion people are without electricity and nearly another billion people have less than 10 hours per day access to electricity. The U.S. leads both in technology and in manufacturing in virtually every U.S. renewable energy technology and has a chance to reap billions of dollars worth of sales if we organize for success. Thus, CORECT must be reauthorized.

The Committee on Renewable Energy Commerce and Trade (CORECT) is composed of 14 federal agencies and entities involved in all aspects of export and devel-

opment. CORECT continues to prove itself as one of the best mechanisms for government and industry cooperation in advancing U.S. technologies from the laboratory to the highly competitive international marketplace. CORECT has been a model on how government and industry can work together to expand exports. P.L. 98-370, signed by President Reagan, was a successful attempt to drive the federal bureaucracy to work together and reduce redundancies.

CORECT and US/ECRE have created several model programs, including:

- joint venture project initiative in Latin America and the Caribbean (LAC). This pilot program, known as America's 21st Century and REIA seeks to advance he deployment of replicable renewable energy projects throughout the Western Hemisphere, with an emphasis on U.S. partnerships. As a result of the Renewable Energy in the America's (REIA) activity, over $1.8 billion worth of projects have been identified for U.S. firms.
- multilateral bank assistance programs to bundle renewable energy financing via the Financing of Energy Services for Small Scale Energy (FINESSE) program in the Asian operations office of The World Bank. Multilateral development banks have been a key source of financing in the energy sector of developing countries, contributing over 25% of their funds primarily for conventional, environmentally damaging energy options. As a result of FINESSE, the first World Bank renewable energy unit has been established in Asia operations, and based upon the success of FINESSE, The World Bank is expanding—albeit slowly—its activities in other regions of the world. The Inter-American Development Bank is also setting up a LAC-FINESSE operation;
- public/private partnerships for project identification and prefeasibility support on a 50/50 cost-share with private industry—the International Fund for Renewable Energy and Efficiency (IFREE). IFREE, funded by The Rockefeller Foundation, AID, DOE, and EPA typifies the kind of early project assistance that builds a long term and sustainable presence in global markets. Prior to IFREE, industry faced even greater stumbling blocks for bankable projects;
- regional emphasis in Latin America, South Asia, and the southern cone of Africa—the Renewable Energy for African Development (REFAD) program has facilitated investments in renewable energy technologies by governments in the southern cone of Africa (South African Development Community) which draws heavily from the U.S. private sector;
- a unified application form for U.S. firms to access export financing for The Agency for International Development, Export-Import Bank (Eximbank) of the United States, Overseas Private Investment Corporation, and the Trade Development Administration

CORECT activities have been instrumental in terms of educating potential customers about the costs, benefits and applications of these technologies, conducting market development activities such as trade missions, technical assistance and training which ready the marketplace for the technologies and help poise the U.S. industry as potential partners. Efforts by CORECT and US/ECRE have helped to raise the awareness of renewable energy and energy efficiency technologies, break down barriers to the technologies, and facilitate sustainable project efforts. Now that the door to renewables has been unlocked, the key is to lay the pathway to ensure that U.S. companies are significant players in the international marketplace.

CORECT has effectively marshalled programs which have strong accomplishments (listed by region):

Latin America

- Nearly half of U.S. renewable energy exports were in this region in 1993, and projections indicate that the Mexican market is the largest for renewable energy technologies.
- A $1.6 million cost-shared photovoltaic program in two Northeast states in Brazil has opened the door to a $500 million potential market. Plans are underway to expand this program to other renewable energy technologies and at least five other Brazilian states.

Asia

- FINESSE has yielded over $600 million in potential renewable energy projects in just three countries—India, Indonesia, and Sri Lanka. The first stand-alone renewable energy project is in place in India, with the others going for the World Bank board approval in the 1995/96 timeframe.
- The Global Environmental Facility (GEF) of The World Bank, with collaboration from industry, has developed a $12 million renewable energy initiative in India that will be used to leverage over $70 million in local capital for in-country re-

newable energy project development activities. This is the first time that GEF funds have been used to leverage host country funding sources.
- A national program has been established in Thailand to utilize its agricultural wastes to build its domestic electricity production.
- Multi-million dollar Eximbank loans have been granted for geothermal projects in the Philippines and Central America.

Africa
- Revolving fund credit programs for renewables in household and small industry applications are underway in three countries: Botswana, Lesotho, and Malawi. Renewable energy for housing is also being considered as an integral component of development plans in South Africa.

Eastern Europe/NIS
- Two U.S. windfarm developers have signed project agreements in the Ukraine for the development of windfarm totaling 1,000 MW, energy efficiency service companies have signed four contracts, a photovoltaics manufacturing facility has been delivered to Russia, and over 10 biomass electric plants for Russia are being considered.

Clearly due to CORECT/COEECT, progress is underway, the marketplace is opening up, and U.S. firms are benefiting. For example:
- photovoltaic exports have topped 70 percent in 1994, driving the building of several new automated manufacturing facilities;
- solar water heating sales have doubled in the Caribbean Basin, South Korea and the Pacific; and
- wind energy projects are underway in Mexico, Costa Rica, Indonesia, and the Ukraine.

Our international competitors have a rigorous set of programs to ensure they control the potential multi-billion dollar markets of the next decade in renewable energy. They have clearly demonstrated their intention to continue with subsidized financing, intensive technology training, utilization of the development programs to "salt" emerging markets, and market aggregation programs of specific technologies to ensure market dominance.

The United States, burdened by limitations on a realistic financing program for emerging industries, especially small businesses, has to respond with new and more innovative ways to build markets and to shoe a long term commitment.

The Energy Policy Act of 1992 reauthorized CORECT and a sister interagency effort for energy efficiency, the Committee on Energy Efficiency Commerce and Trade (COEECT). Here again, trade associations and state public interest organizations established a consortium (Export Council for Energy Efficiency, ECEE) to promote exports. CORECT and COEECT were authorized through FY '95.

These federal interagency efforts have proved themselves to be very successful, and should be reauthorized at least through 1999 for "such sums as necessary."

In addition, US/ECRE suggests that several initiatives be endorsed in the reauthorization to add emphasis and momentum to the very good work already established. The suggestions are: establish a Global Rural Electrification Program, which would direct DOE with cooperation from AID, Eximbank, OPIC, TDA, and USDA towards sustainable renewable energy rural electrification programs; establish set-aside funds within the multilateral banks for energy, pollution prevention, healthcare and infrastructure programs which would allow renewable energy, energy efficiency and environmental technologies to be integrated formally in loan portfolios; establish an aggressive renewable energy technical assistance program utilizing the best of U.S. training, technical assistance, computer multimedia tools and information transfer capabilities to ensure the U.S. lead in the global marketplace; and direct that replicable renewable energy projects via Joint Implementation including financing facilitation are supported.

CORECT has shown that the federal government can focus in detail on assisting U.S.-based emerging industries in enhancing global marketshare. The CORECT and the newer COEECT program have created new models in project financing, interagency cooperation, and project development. Continued support will help drive the program further which will show how the U.S. can assist other industry sectors.

The Committee on Renewable Energy Commerce and Trade has proven itself a winner. US/ECRE and its member trade associations in the bioenergy, geothermal, hydropower, photovoltaic, solar thermal, wind and energy efficiency industries strongly support this reauthorization.

Thank you.

Mr. SCHAEFER. Thank you very much, Mr. Sklar. As long as you're into CORECT, isn't there also a U.S. Export Council for Renewable Energy?

Mr. SKLAR. Yes. That's the consortium of all our trade associations. While we wanted the government bureaucrats to cooperate, at the same time we didn't want them necessarily to set the priorities in the marketplace. We believe our industry knows what the priorities of the marketplace are. So we work with them to make sure that the activities are focused.

Mr. SCHAEFER. This is a private enterprise?

Mr. SKLAR. It is a nonprofit consortium, yes.

Mr. SCHAEFER. But it's made up of private industry?

Mr. SKLAR. Yes.

Mr. SCHAEFER. The question is, do we need them both, and if so, why?

Mr. SKLAR. We do need them both because the CORECT activity is really the aggregation of the agencies sitting on a committee. What we did in the private sector was say to work with these guys it would be best for us in the different trade associations to get our act together and build consensus and then work with them.

Actually, we created our consortium before CORECT and we worked to help drive consensus, so when the interagency board met we would come to them and say this is what we think the priorities are. The good news is that they have been very collaborative. They have worked with us. The fact of the matter is it's just the industry counterpart to the Federal interagency coordinating board. That's all this is.

Mr. SCHAEFER. Mr. Sklar, have you done work with what used to be known as SERI and now NREL in Golden?

Mr. SKLAR. Yes, sir. I've done quite a bit of work with them.

Mr. SCHAEFER. How about ACX, the company right outside there that has really done a lot of work in this photovoltaic site? I've been out there and they showed exactly what you are saying. The small villages that never before had electricity now have one plant or one operation that supplies everybody with it.

Mr. SKLAR. That's right.

Mr. SCHAEFER. You are not familiar with ACX?

Mr. SKLAR. I am familiar with ACX and Golden Photon, the photovoltaic manufacturer in your State. Yes, these kinds of programs help make sure that they have an avenue to get consolidated information of what already the feds do and greater interface with potential customers.

I also forgot to point out that one of the problems in these small businesses like ACX is the fact that when they go overseas you would expect that the commercial attache in the embassy will help you. Well, they won't, because you're a teeny guy, small business with a technology they've never heard of. So one of the reasons we also pushed this program was to make sure that there was some way to work with the small business side of the industry that is not going to get the same assistance from the traditional venue of business overseas with the Federal Government.

Mr. SCHAEFER. I've got a couple questions on the potential of the market, particularly in Latin America and the Caribbean. DOE has estimated it to be about $8.5 billion, and I think in your testimony

you indicate that $1.8 billion worth of projects have been identified for U.S. firms. Is this our potential, $1.8 billion?

Mr. SKLAR. First of all, these are projects we have absolutely identified over the last year and a half that we think the U.S. industry has a strong shot at, and it's just the renewable energy count. I think what DOE gave you was what they perceived as a likely target for both renewables and efficiency. I gave you a more conservative number, but I believe that that is very, very conservative, and that $1.8 billion is only over the next 2 to 3 years. It's not a long-term venture at all.

The way the Brazilian government, Chile, Argentina, and Mexico are going is that for significant parts of their population they will be relying on their renewable technology to drive electrification, and U.S. industry is going to be a leader in that hopefully with joint ventures and direct sales.

Mr. SCHAEFER. How are we doing when we look at, say, Germany and France in these potential energy markets?

Mr. SKLAR. While we lead in the technology for Germany, France and Japan, what we don't lead in is the tactics that they use to enter markets. Japan and Germany use their agency for development, which is comparable to our AID, to first give away technology to salt the market, and then they use 2 percent financing to take the market. That's a hard ball. That's not just renewables; it just happens to be the way the world is working.

We have decided to counter that in a couple of ways. One, we have been working with groups like NREL and Sandia to help us in automated manufacturing technology to beat them on the economies of scale in manufacturing, and we are.

Second, we have been using these sort of new models, these new venues, to work with the development banks and to get our government orchestrated to just get there first so we steal it away before they do.

I have to tell you we've been quite successful on that.

Mr. SCHAEFER. How advanced are these countries in photovoltaics?

Mr. SKLAR. In photovoltaics, right now Germany first, Japan second, and then France third are our biggest competitors. They are very close behind. But again, because we have looked at different markets and our governments have frankly been more collaborative in the way we structure research and cost share joint ventures in R&D, we are leading. That's why I'm concerned that we don't lose the opportunity. The U.S. is great at research. How do you make sure you get the sales and get back to the American public their investment in jobs and taxes?

Mr. SCHAEFER. Mr. Nunley, you probably heard in the previous questioning that I brought up this weatherization rule issued by DOE in 1993 because of criticisms of the formula. Has this improved, in your way of thinking, or are we still at ground zero?

Mr. NUNLEY. I'm not sure that I can answer that, because in our particular State, weatherization isn't in the energy office; it's in the Department of Family Services. But I can say from my own personal point of view that while I am disappointed that weatherization and the energy offices have seen a reduction in their budget for 1996, I do feel that we are probably better off, at least in the

State of Wyoming, if there is an equitable sharing by formula of the funds based on something besides size or whether we're a southern State or a warm weather State or a cold weather State.

Mr. SCHAEFER. The interior and related Agencies appropriation bill for fiscal year 1996 consolidated the Institutional Conservation program with the Solar Energy Conservation program. Does this give States and DOE more flexibility in administering these programs, and what impact might you see?

Mr. NUNLEY. Once again, I guess I am a little disappointed in the funding level, because a number of the States are, I won't say comfortable necessarily, but we have developed programs around a particular percentage of dollar help from DOE combined with whatever we have gotten from private organizations.

I will say that NASEO and the States have been working with the Department of Energy for some time now in adding flexibility to programs and trying to combine programs in a way that makes them more efficient to run. I think probably when the ICP is put into SECP we will have some more flexibility and may possibly be able to do a little better job of that SECP program than has been done in the past.

Mr. SCHAEFER. You also heard me ask the question about the average funding levels of about $25 million for 1992 and 1993 and $10.6 million, in 1 year and $11 million in the other year that actually went to the States, and it was indicated to us that they thought about 10 percent was administrative cost. If that is all that is getting out to you, are there ways that they can improve on this? We are going to get those true figures.

Mr. NUNLEY. If they are taking 50 or 60 percent, I suspect there are some economies and efficiencies that can be had someplace. Invariably, I think the States have found in dealing with the Federal Government, whether it's some of the national labs or even with DOE, that there seems to be a little higher overhead cost than we normally experience in the States themselves.

A member of the NASEO staff has a feeling that those numbers are looking at two separate accounts, and one of them is not money that went to the States.

Mr. SCHAEFER. I see. We'll find out for sure.

Gentlemen, we have another vote on and I don't have any more questions. I want to leave this record open because either minority or majority staff in sorting this out may like to get some answers in writing on this. You gentlemen have been very helpful on how we are going to handle this piece of legislation and try to move it as rapidly as we can. As I stated before, I'm a big supporter of renewable energy whenever we can possibly use it. Thank you very much.

Mr. NUNLEY. Thank you, Mr. Chairman.

Mr. SKLAR. Thank you very much.

Mr. SCHAEFER. The subcommittee is now adjourned.

[Whereupon at 12:10 p.m. the subcommittee was adjourned.]

[Additional material submitted for the record follows.]

PREPARED STATEMENT OF HON. THOMAS J. BLILEY, JR., CHAIRMAN, COMMITTEE ON COMMERCE

Mr. Chairman, I commend you for holding this timely hearing on extending the authorizations for the energy security and conservation programs contained in the Energy Policy and Conservation Act (EPCA).

EPCA was first authorized by this Congress in 1975. At that time this nation was facing an energy crisis. Over regulation of the energy industry and lack of free market incentives resulted in severe energy shortages. EPCA programs were supposed to help the U.S. reduce its energy consumption and its over reliance on foreign oil.

However, things have certainly changed since then. Energy deregulatory programs have resulted in both lower energy prices and more abundant supply. At the sane time, U.S. dependence on foreign oil has risen to an all time high and is expected to continue to rise.

Which raises the question of whether we still need the programs contained in EPCA or is there a better and more cost-efficient way to accomplish the same goals? In addition, we must ask: are EPCA programs still being used for the purposes they were intended?

For example, earlier this year, the Administration proposed and Congress accepted legislation to sell oil from the Strategic Petroleum Reserve to raise revenues. The result is the U.S. will sell oil purchased at an average cost of $30 a barrel in a market that will yield $15 a barrel. In addition, since DOE signaled that the Strategic Petroleum Reserve was open for business, there have been legislative proposals to sell even more oil. Clearly, the Strategic Petroleum Reserve is not a good tool for deficit reduction. However, as more and more oil gets sold it will also no longer be a good tool for protecting the U.S. from energy supply disruptions.

Because times change, I believe hearings like this one are important. Congress must periodically examine whether the legislation it has enacted is still accomplishing its goals and doing so in the most cost effective manner. The programs authorized under EPCA cost millions of dollars a year and we would be shirking our responsibility to the American taxpayer if we did not engage in this type of review to assure that their money is being spent wisely.

Thank you Mr. Chairman.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION FOR STATE COMMUNITY SERVICES PROGRAMS

The National Association for State Community Services Programs (NASCSP), is the national organization that represents the state directors of the Weatherization Assistance Program (WAP) as well as state directors of the Department of Health and Human Services' Community Services Block Grant (CSBG). We thank the Committee for the opportunity to submit testimony on behalf of the Department of Energy's Weatherization Assistance Program.

The Weatherization Assistance Program (WAP) increases the energy efficiency of residences occupied by low-income persons, particularly the elderly, those with disabilities and families with children while ensuring their health and safety. At the same time, WAP reduces the energy burden of low-income Americans and increases domestic employment.

WAP is funded primarily through formula grants to the states. It is implemented through a network of over 1,100 local subgrantees, largely community action agencies or other non-profit or government organizations, which install or contract for the installation of energy efficiency measures.

In the FY 1995 program, the Department of Energy implemented a change in its funding formula for the first time since the inception of the program. The changed formula increased the funds available in the warm climate states while protecting the program capacity in the colder climate states. This was possible because Congress had increased the funding for the program. The new funds (coupled with changes made in the authorizing language that focussed on cooling measures that could be installed by the program) have greatly enhanced the ability of the warm weather states to provide extensive energy-saving services to low-income residents in their states.

In a time of great skepticism about the effectiveness of public programs, Weatherization is an example of a federal/state/community partnership that returns more value than the taxpayer invests, and delivers measurable and long-lasting results. States and local agencies annually leverage over $200 million in additional, non-DOE, resources to increase the number of low-income homes assisted.

Investment is the key word that describes federal dollars spent in the Weatherization Assistance Program. When the 1989 Weatherization Assistance Program was

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evaluated by the Oak Ridge National Laboratory (ORNL), Oak Ridge demonstrated that for every dollar invested in Weatherization the program paid back $1.72 in energy savings. In many states, that return was even higher, for example, in North Carolina, the return on each dollar invested was $1.95.

Since 1989, the program has been using new energy audits that identify the most cost effective measures to install. *NASCSP is confident that nationally the savings are now over two dollars for every one invested, and in the next five years, the return on every dollar invested will be three.* For example, in North Carolina, the return on one dollar invested in FY 1994 was two dollars and sixty-six cents. The goal of a three to one return for funds invested in Weatherization is attainable.

In 1989, the year ORNL used for the WAP evaluation, Congress appropriated funds to put approximately 12 million barrels of oil in the Strategic Petroleum Reserve. *ORNL found that weatherization investments in 1989 will save the Btu equivalent of 12 million barrels over the lifetime of the measures installed. Thus, WAP put the same number of Btus into the economy without using expensive storage facilities and employed twice as many workers per dollar.*

Based on the ORNL evaluation we know that Weatherization, in 1989, saved the average low-income family 18% on their energy bill, or just over $150 per year. The typical household receiving these services has a household income of less than $8,000 per year. But many states saved much more five years ago and all save more today. *In North Carolina they have demonstrated savings of 27% which represents a savings of $292 toward a low-income household's fuel bill. The savings continue to accumulate over the life of the Weatherization investment.* It should be noted that North Carolina is not an anomaly; a number of states have comparable performances.

One measure of achievement of this program that may have escaped this subcommittee's notice is the fact that it reduces carbon emissions and significantly helps in the achievement of climate change treaty obligations. *Studies by ORNL indicate that emissions are reduced by upwards of 60,000 metric tons per year for each year's weatherized units.* Weatherization is at least as effective as some other programs addressing climate change.

The Weatherization Assistance Program creates and sustains jobs as well as reduces emissions. *For each million dollars invested in the program, 52 people are directly employed for one year and an additional 22 jobs are indirectly supported.* More than half the direct hires are private sector contractor jobs. All 22 indirect jobs are in retail, manufacturing and service.

If the program had been funded at the President's FY 1996 requested level of $229 million, those funds would have produced over 16,000 weatherized homes nationwide, supported 17,000 jobs and would have saved 2 trillion British Thermal Units (Btus) of energy in the first year. Since the House and Senate have agreed to a 47% cut in the program all of these benefits will be significantly less.

Budget Reduction Impact

Funding (Millions)		Homes Weatherized		Jobs Maintained	
$ Level	Reduction from FY 95 Level	At $ Level	At Reduction from FY 95 Level	At $ Level	At Reduction from FY 95 Level
FY 95 $214.871		108,831		11,173	
FY 96 $114.196	−100M −47%	57,798	−51,033	5,938	−5,235

Note: FY 1996 Level of $114.196M is subject to a −$4.65M uncosted balance adjustment.

The Weatherization network has been the leader in developing technologies that are now being used in the private sector for energy conservation. Major examples of this technology transfer are the use of computerized audits, investment protocols, blower-doors for the identification of air sealing, the use of high density cellulose and the use of specialized instrumentation to determine the results of the Weatherization process. Many of these technologies have been adopted by utility programs as they develop their own energy conservation programs.

Since its inception WAP has weatherized over 4.4 million homes using federal appropriations, Petroleum Violation Escrow (PVE) funds (the so called oil overcharge funds) and monies from the Low-Income Home Energy Assistance Program (LIHEAP). PVE funds are essentially depleted, and the future of LIHEAP is unknown.

The total of all funding sources for WAP in 1988 exceeded $510 million. In FY 1996 with minimum DOE grants of $114 million, coupled with LIHEAP and other federal reductions, the total program will be in the $200 million range—a 60% reduction in our nation's capacity to reduce the energy bills of low-income Americans.

The FY 1996 Appropriation level of $114 million will collapse the existing service delivery systems as an average of less than $100,000 per agency is insufficient to support a viable local program, and will also reduce the capacity to leverage other funds. Local Programs will be forced to consolidate or close as programs downsize. Layoffs of approximately 5,300 skilled workers across the country will jeopardize leveraging activities.

Still, the Department of Energy's Weatherization Assistance Program remains the base for the expenditure of other funds in residential energy conservation. It has provided a knowledgeable and competent workforce that has tested and implemented new energy efficient technologies. It is the field laboratory for new ideas in energy efficiency and conservation.

NASCSP urges the Committee to consider a five year authorization for the Weatherization Assistance Program.

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